

# *South Coast Air Quality Management District*

## *Statement of Basis*

### *Final Title V Permit*

**Facility Name:** ConocoPhillips Company, Carson Refinery  
**Facility ID:** 800362  
**SIC Code:** 2911  
**Facility Address:** 1520 E. Sepulveda Blvd.  
Carson, CA 90745

**Application Number:** 337522  
**Application Submittal Date:** 2/5/98

**AQMD Contact Person:** Angelita Alfonso, Air Quality Engineer  
**Phone Number:** (909) 396-2255  
**E-Mail Address:** aalfonso@aqmd.gov

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## **1. Introduction and Scope of Permit**

Title V is a national operating permit program for air pollution sources. Facilities subject to Title V must obtain a Title V permit and comply with specific Title V procedures to modify the permit. This permit replaces the facility's other existing permits. Title V does not necessarily include any new requirements for reducing emissions. It does, however, include new permitting, noticing, recordkeeping, and reporting requirements.

The AQMD implements Title V through Regulation XXX – Title V Permits, adopted by the AQMD Governing Board in order to comply with EPA's requirement that local air permitting authorities develop a Title V program. Regulation XXX was developed with the participation of the public and affected facilities through a series of public workshops, working group meetings, public hearings and other meetings. AQMD also has published a draft of the Technical Guidance Document for Title V (March 2005, Version 4.0) available on the AQMD website at <http://www.aqmd.gov/titlev/TGD.html>.

The Title V major source threshold for a particular pollutant depends on the attainment status of the pollutant in the South Coast Air Basin. The Basin is in attainment with National Ambient Air Quality Standards (NAAQS) for NO<sub>2</sub>, SO<sub>2</sub>, CO, and lead. The status for CO has been redesignated from nonattainment to attainment in June 2007 (72 FR 26718). The status for PM - 2.5 is currently in non-attainment and PM-10 is currently in serious nonattainment. The status for ozone is currently in extreme nonattainment.

The AQMD is issuing the Initial Title V permit to cover the Carson refinery operations that is owned and operated by ConocoPhillips Company and is located at 1520 E. Sepulveda Blvd, Carson, CA 90745. At this location, operations include initial separation, conversion, and some treating of the crude oil. These operations are subject to Title V requirements because this facility is a major source and is subject to certain New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements. However, final processing and blending of the blendstocks into finished products (after further conversion and treating) is completed at the Wilmington refinery (Facility ID 800363). The Wilmington operation is also owned and operated by ConocoPhillips Company and is located at 1660 W. Anaheim St, Wilmington, CA 90744. As required, ConocoPhillips Company has already applied for a separate Title V permit for the Wilmington portion of refinery. The Title V permit for the Wilmington refinery has been proposed for issuance on July 31, 2008. Thus, the subject of this Statement of Basis and the final initial Title V permit consist of the Carson refinery only.

ConocoPhillips also operates a Marine Terminal (LARMT) (Facility I.D. 111642) in support of both refinery operations, located at Berths 148-151 Pier A Street, Wilmington, CA 90744. Raw, intermediate, and finished materials are transferred between LARMT and the two refineries primarily by pipelines. The LARMT received an exemption from Title V permitting requirements by accepting federally enforceable permit conditions that limit the facilities potential to emit below the Title V applicability emission thresholds specified in AQMD Rule 3001.

Finished products such as gasoline, diesel and other products produced at the refinery are transferred via the ConocoPhillips Torrance Tank Farm (Facility ID 111814) to three bulk loading terminals. The Torrance Tank Farm is located at 2650 Lomita Blvd, Torrance, CA 90505. This facility was issued its own separate initial Title V permit on April 16, 2001, and has applied for a renewal of its Title V permit on October 18, 2005 (which is currently under review).

Finally, gasoline, diesel, and other products produced at the refinery are distributed via three bulk loading terminals including ConocoPhillips Colton Terminal - West (Facility ID 800364), located at 2301 S. Riverside Ave, Bloomington, CA 92316; the ConocoPhillips LA Terminal (Facility I.D. 800365) located at 13500 S. Broadway Ave., Los Angeles, CA 90061; and the ConocoPhillips Colton Terminal – East located at 271 E. Slover Ave., Rialto, CA 92376. The Colton Terminal - West was issued its own separate initial Title V permit on April 16, 2001. The LA Terminal and the Colton Terminal – East have separately applied for their Title V permits in 1999 and 2002, respectively. These Title V permits for these terminals will be issued at a later date.

## **2. Facility Description**

ConocoPhillips Los Angeles Refinery is owned and operated by ConocoPhillips Company and is located in Carson and Wilmington. It processes crude oil into various petroleum products such as gasoline, diesel, jet fuel, fuel oil, cutter stock, liquefied petroleum gases (LPG), and coke. Currently, the ConocoPhillips Carson refinery has a capacity to process approximately 138,700

barrels of crude oil per day. The refinery utilizes several processes to separate petroleum components within crude oil and to convert heavy components into lighter hydrocarbon compounds. These hydrocarbon compounds are used as blending components for gasoline, diesel, and other products. At the Carson refinery, crude oil is separated into LPG, kerosene, diesel, naphtha, and gas oil. A portion of the gas oil is hydrotreated to remove sulfur and other impurities. The intermediate products (naphtha and treated/untreated gas oil) are then sent to the Wilmington refinery via pipeline for further refining including conversion, treating and blending to produce finished products such as gasoline, diesel, jet fuel and cutter stock which are sold to the general public and industry as transportation fuels. The cutter stock is sold to industry for blending into fuel oil, which is utilized as transportation and heating fuels. The refinery also produces four co-products: petroleum coke, hydrogen, carbon dioxide, and sulfur.

Operation at the Carson refinery includes the following major processes:

#### Crude and Vacuum Distillation Units

These units are the first major processing units in the refinery flow. They are used to separate the crude oil by distillation into fractions according to boiling points. The products from these units are gases (propane, butane, etc), gasoline, naphtha, kerosene, diesel, gasoil, and straight run and vacuum residual.

#### Coking

Heavy residual oil and recovered oil are thermally cracked at a high temperature to produce light hydrocarbons and petroleum coke. Petroleum coke is transferred via a slurry system to the coke barn for further processing and distribution.

#### Hydrogen Plant and Hydrotreating

The hydrogen plant at Carson produces hydrogen for use in various hydrotreating processes. Gas oil produced from the crude units and coking unit is catalytically stabilized and impurities are removed by reacting them with hydrogen. Impurities removed by hydrotreating include sulfur, nitrogen, and oxygen. Hydrotreating is applied to a wide range of feedstocks, from naphtha to reduced crude oil. Carbon dioxide is generated in the hydrogen plant as a co-product. The carbon dioxide is removed and recovered for sale to a distribution company for various use.

In addition to the above major processes, the facility operates other distillation and separation processes, numerous combustion units (such as heaters and boilers utilized in many of the above processes), sulfur plants, refinery flares, and wastewater treatment systems. Also, the facility uses fixed roof tanks, internal floating roof storage tanks, external floating roof storage tanks, and pressurized storage tanks to store crude oil, intermediate and finished products.

### **3. Construction and Permitting History**

The Carson portion of the refinery has been in continuous operation since 1921. Numerous permits to construct and permits to operate have been issued to the refinery since the formation of the Los Angeles County Air Pollution Control District in 1947. The current permit to operate

and/or permit to construct for each permit unit located at the refinery is contained in the Title V permit.

#### **4. Regulatory Applicability Determinations**

Applicable legal requirements with which this refinery must comply have been identified in the Title V permit (for example, Section D, E, and H of the final initial Title V permit). Device level condition H23.x denote applicability of federal regulations and source specific AQMD Rules to permitted equipment. Applicability determinations (i.e., determinations made by the District with respect to what legal requirements apply to a specific piece of equipment, process, or operation) for this facility have been completed. NSPS requirements of 40 CFR Part 60 apply to certain units at the facility and the permit terms and conditions may be found in Sections D and H of the Title V permit. NESHAP requirements of 40 CFR Parts 61 and 63 apply to certain units at the facility and the permit terms and conditions may be found in Sections D, H, and J of the Title V permit. Determinations of federal regulations that do not apply can be found in this section of the Statement of Basis.

This section contains a discussion of complex regulatory applicability determinations. This section also summarizes the NSPS and NESHAP applicability determinations for permitted equipment at this facility.

##### Federal Regulations

##### ***Standards of Performance for New Stationary Sources (NSPS) (40 CFR 60)***

With the exception of certain specific equipment as further explained in Tables 4.1 to 4.3 below, the refinery is generally subject to the following NSPSs:

- 40 CFR 60 Subpart J – Standards of Performance for Petroleum Refineries
- 40 CFR 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978,
- 40 CFR 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984,
- 40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Storage Vessels (Including Petroleum Liquids Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced July 23, 1984,
- 40 CFR 60 Subpart GGG – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries,
- 40 CFR 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems.  
(Please note that the design capacity of all oil water separators in the refinery is greater than 250 gallons per minute.)

The above regulations specify standards for applicable equipment within the refinery based on construction date or subsequent modifications that resulted in an emission increase as defined by 40 CFR 60.14(a) or reconstruction with a capital cost of the new components exceeding 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility as defined in 40 CFR 60.15(a) and (b). The applicability of the above rules is based on information contained in the permit application files or through refinery responses to information requests.

All of the equipment in the Title V Permit have been reviewed to determine whether they are subject to any of the NSPSs. Tables 4.1 to 4.3 below contain tabulated summaries of selected negative determinations regarding NSPS applicability.

**Table 4.1 Combustion Sources Not Subject to NSPS Requirements**

<b>Device ID</b>	<b>Equipment</b>	<b>Regulation</b>	<b>Summary of Non-Applicability Determination</b>
D429	Boiler	40 CFR 60, Subpart D/Db <sup>1</sup>	Original construction in 1969. No subsequent modification or reconstruction.
D430			
D713	Heater	40 CFR 60, Subpart J	Permitted to combust only commercial natural gas.

<sup>1</sup> 40 CFR 60 Subpart D – Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction Commenced after August 17, 1971 & 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

**Table 4.2 Storage Tanks Not Subject to NSPS Requirements and Wastewater Systems Not Subject to NSPS Requirements and Federally Enforceable Rule**

<b>Device ID</b>	<b>Equipment</b>	<b>Regulation</b>	<b>Summary of Non-Applicability Determination</b>
D86 D359 D360 D752 D915 D917	Storage Tank	40 CFR 60, Subpart K/Ka/Kb	Tank is permitted to store inorganic liquids only.
D363 D759 D761	Storage Tank	40 CFR 60, Subpart K/Ka/Kb	Storage capacity below threshold for the subject NSPSs.
D352 D353 D354 D426	Storage Tank	40 CFR 60, Subpart K/Ka/Kb	Vapor pressure of permitted commodities is below the vapor pressure threshold of the subject NSPSs.
D422 D423 D424 D425	Storage Tank	40 CFR 60, Subpart K/Ka/Kb	Pressure vessels designed to operate in excess of 15 psig without emissions to the atm. except under emergency conditions.

Device ID	Equipment	Regulation	Summary of Non-Applicability Determination
D365 D366 D367 D369 D370 D372 D373 D374 D376 D377 D378 D379 D382 D384 D388 D389 D403 D404 D409 D410 D414 D415 D416 D417 D418 D419	Storage Tank	40 CFR 60, Subpart K/Ka/Kb	Tank was constructed prior to June 11, 1973, and has not been modified or reconstructed since then.
D426	Portable Storage Tank	40 CFR 60, Subpart QQQ	Stores API Separator sludge which is neither wastewater nor "slop oil" as defined in 40 CFR 60 Subpart QQQ.
D339	Oil and Water Sump	Rule 1176(e)(2)(A)(ii)	Does not vent to atmosphere. The vapor goes back to the API separators equipped with controlled devices.
D340	Process Water Sump	Rule 1176(i)(5)(J)	Meets the exemption in Rule 1176(i)(5)(J) because the VOC content of each liquid stream entering the sump does not exceed 5 mg/liter at all times. To demonstrate continued exemption, testing will be repeated using EPA Method 8260B whenever additional liquid streams are sent to the sump, or whenever there is a change in the chemical composition of the existing streams.

**Table 4.3 Fugitive Components Not Subject to NSPS Requirements**

Device ID	Equipment	Regulation	Summary of Non-Applicability Determination
D861	Fug. Components (P8S1)	40 CFR 60, Subpart GGG	Components associated with material loading or unloading. Not part of a process unit.
D862	Fug. Comp. (P8S3)		
D868	Fug. Comp. (P9S1)	40 CFR 60, Subpart GGG	Components associated with wastewater treatment systems. Not part of a process unit.
D869	Fug. Comp. (P9S3)		
D944	Fug. Comp. (P9S4)		
D945	Fug. Comp. (P9S5)	40 CFR 60, Subpart GGG	Components associated with material storage. Not part of a process unit.
D870	Fug. Comp. (P10S1)		
D871	Fug. Comp. (P10S2)		
D872	Fug. Comp. (P10S3)		

Device ID	Equipment	Regulation	Summary of Non-Applicability Determination
D873	Fug. Comp. (P10S4)		
D947	Fug. Comp. (P10S5)		
D948	Fug. Comp. (P10S7)		
D846	Fugitives, Hydrogen Production	40 CFR 60, Subpart GGG	Built before 1/4/83.
D849	Fugitives, Gas Production	40 CFR 60, Subpart GGG	Not part of a process unit.
D876	Fugitives, Flare System	40 CFR 60, Subpart GGG	Not part of a process unit.
D877	Fugitives, Flare System	40 CFR 60, Subpart GGG	
D77	Vent Gas Compressor, FR-501	40 CFR 60, Subpart GGG	Installed before 1/4/83.
D103	Wet Gas Compressor, CK-501		
D169	Stripper Vent Gas Compressor, HP-559		
D170	Stripper Vent Gas Compressor, HP-560		
D206	Single Stage Compressor, HP-555		
D207	Single Stage Compressor, HP-556		
D800	Recycle Gas Compressor, HP-558		

The refinery is not subject to the NSPSs listed below.

- 40 CFR 60 Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971. The refinery does not operate any steam generators that are subject to this subpart.
- 40 CFR 60 Subpart Da - Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978. The refinery does not operate any steam generating units that are subject to this subpart.
- 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The refinery does not operate any steam generators that are subject to this subpart.
- 40 CFR 60 Subpart XX - Standards of Performance for Bulk Gasoline Terminals. The refinery does not own or operate a bulk gasoline terminal on site.
- 40 CFR 60 Subpart III- Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes. The refinery does not conduct any SOCMI operations.

- 40 CFR 60 Subpart NNN - Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations. The refinery does not conduct any SOCMI operations.
- 40 CFR 60 Subpart RRR - Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical. The refinery does not conduct any SOCMI operations.

***National Emission Standard for Hazardous Air Pollutants (NESHAP) (40 CFR 61 and 63)***

The refinery is subject to the following NESHAPs:

- 40 CFR 61 Subpart FF - National Emission Standard for Benzene Waste Operation,
- 40 CFR 63 Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries,
- 40 CFR 63 Subpart UUU - National Emission Standard for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units, and
- 40 CFR 63 Subpart EEEE - National Emission Standard for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline).

Each of these standards, as applicable to the ConocoPhillips refinery, is incorporated into the Title V permit.

***40 CFR 61 Subpart FF***

40 CFR 61 Subpart FF-National Emission Standard for Benzene Waste Operations (Benzene Waste NESHAP) defines a major source as any chemical manufacturing plant, coke by-product recovery plant, or petroleum refinery with 10 megagram per year (Mg/yr) (11 tons/yr) or more of benzene in the waste streams. This regulation requires a major source to control benzene in any waste streams that contain 10 parts per million by weight (ppmw) or more of benzene. It requires the removal or destruction of the benzene contained in the waste using a treatment process or waste water treatment system that either a) removes benzene from the waste stream to a level less than 10 ppmw on a flow-weighted annual average basis, b) removes benzene from the waste stream by 99 percent or more on a mass basis, or c) destroys benzene in the waste stream by incinerating the waste in a combustion unit that achieves a destruction efficiency of 99 percent or greater for benzene.

The regulation also specifies a standard for each waste management unit that receives or manages the waste stream before and during treatment of the waste stream. Waste management unit includes tanks, surface impoundments, containers, individual drain systems, and oil water separators.

Condition P13.2 is tagged to all processes that contain benzene waste streams that are subject to Subpart FF.

All of these waste streams are subject to the recordkeeping and reporting requirements of 40 CFR61.356 and 61.357, respectively. Where applicable, waste management units and waste

treatment systems subject to Subpart FF have been identified in the permit by specifying the 500 ppm VOC limit in the “Emissions and Requirements” column and/or condition H23.12, H23.23, and H23.24 in sections D & H of the Title V permit. The emission limit and condition have been tagged with Subpart FF. The listing in the “Emissions and Requirements” column also references Section J of the permit where the applicable subpart FF requirements are contained.

The following equipment have been identified in the permit as subject to equipment-specific requirements of Subpart FF based on information contained in the individual equipment permit files or based on the refinery’s Subpart FF report submitted to EPA as required by 40 CFR 61.357:

**Table 4.4 Equipment Subject to Benzene NESHAP**

Process No.	System No.	Equipment
6 (Gas & Water Treat.)	1 (Sour Water Stripping Unit)	Sour Water Stripper
7 (Sulfur Production)	1 (Sulfur Recovery Unit No. 1)	SRU Reactor
7 (Sulfur Production)	2 (Sulfur Recovery Unit No. 2)	SRU Reactor
10 (Storage Tanks)	2 (External Floating Roof Tanks)	Storage Tank
1 (Crude Distillation)	7 (Brine Flash (Benzene) Stripper)	Stripper Column

40 CFR 63 Subpart CC

The Carson refinery is also a major source under the definition of 40 CFR 63 Subpart CC (NESHAP from Petroleum Refineries). This rule seeks to reduce the emissions of eleven air toxics, including benzene. The rule requires controls for emissions of air toxics from storage tanks, equipment leaks, process vents, and wastewater collection and treatment system. For each equipment subject to Subpart CC, “HAP” is listed in the “Emissions and Requirements” column of sections D and H of the Title V permit along with a reference to Section J of the permit, which contains the emission limits and requirements for Subpart CC.

The following equipment have been identified in the permit as subject to Subpart CC based on the refinery’s Notification of Compliance Status report submitted to EPA as required by 40 CFR 63.654(f) and/or based on a response to additional information requested by the AQMD

**Table 4.5 Group 1 Storage Vessels**

(Storage vessels with a capacity of  $\geq 177 \text{ m}^3$ , and vapor pressure  $\geq 10.4 \text{ kPa}$  (maximum) and  $\geq 8.3 \text{ kPa}$  (annual average), and Organic Liquid HAP concentration  $> 4\%$  by weight (annual average))

Process No.	System No.	Equipment
10 (Storage Tanks)	7 (Domed Ext. Float Roof Tanks)	Storage Tank

**Table 4.6 Group 1 Wastewater Streams, Existing/New Source**

Process No.	System No.	Equipment
1 (Crude Distillation)	7 (Brine Flash Stripper)	Stripper Column

**Table 4.7 Group 1 Process Vents, Existing/New Source**  
(Process vents containing organic HAP concentration  $\geq 20$  ppmv, and total VOC emissions  $\geq 33$  kg/day)

Process No.	System No.	Equipment
None	None	None

**Table 4.8 Equipment Leaks, Existing Source**  
(Equipment containing or contacting fluid that is 5% by weight total organic HAPs)

Process No.	System No.	Equipment
1 (Crude Distillation)	1 (Crude Distillation Unit)	Fugitive Emissions
1 (Crude Distillation)	7 (Brine Flash Stripper)	Fugitive Emissions
2 (Coking & Residual Conditioning)	1 (Delayed Coking Unit)	Fugitive Emissions
3 (Hydrotreating)	1 (FCC Feed Hydrodesulfur Unit DHT-3)	Fugitive Emissions
3 (Hydrotreating)	3 (FCC Feed Hydrodesulfur Unit 120)	Fugitive Emissions
5 (Gas Production)	1 (Debutanizer Unit)	Fugitive Emissions
10 (Storage Tanks)	2 (Ext. Floating Roof Tanks)	Fugitive Emissions
10 (Storage Tanks)	3 (Pressurized Tanks)	Fugitive Emissions

**Table 4.9 Group 2 Process Vents /Storage Vessels/ Wastewater Streams**  
(Storage vessels with a capacity of  $\geq 177$  m<sup>3</sup>, and vapor pressure  $\geq 10.4$  kPa (maximum) and  $\geq 8.3$  kPa (annual average), and Organic Liquid HAP concentration  $< 4\%$  by weight (annual average), and process vents that are not group 1)

Process No.	System No.	Equipment
1 (Crude Distillation)	4 (Vacuum Flash Unit)	Skim Oil Pot
4 (Hyd. Production)	1 (Hydrogen Plant)	Stripper Column
4 (Hyd. Production)	1 (Hydrogen Plant)	DEA Sump
4 (Hyd. Production)	1 (Hydrogen Plant)	K.O. Pot
4 (Hyd. Production)	1 (Hydrogen Plant)	Flash Tank
4 (Hyd. Production)	1 (Hydrogen Plant)	Selexol Sump
5 (Gas Production)	4 (Coker LPG Merox Unit)	Separator Vessel
6 (Gas & Water Treat.)	3 (Sour Gas Treating Unit)	DEA Flash Tower
6 (Gas & Water Treat.)	3 (Sour Gas Treating Unit)	DEA BD Sump
6 (Gas & Water Treat.)	4 (Amine Regen. Unit No. 1)	DEA Surge Tank
8 (Loading & Unload.)	1 (Crude Oil Tank Car Unload.)	Oil Surge Tank
9 (Wastewater Treat.)	1 (Storm/Process Unit WWTS)	API Separator
9 (Wastewater Treat.)	1 (Storm/Process Unit WWTS)	Sump
9 (Wastewater Treat.)	1 (Storm/Process Unit WWTS)	Drain System
9 (Wastewater Treat.)	3 (Oil & Water Separation No. 1)	CPI Separator
9 (Wastewater Treat.)	3 (Oil & Water Separation No. 1)	Drain System
9 (Wastewater Treat.)	4 (Oil & Water Separation No. 2)	CPI Separator
9 (Wastewater Treat.)	4 (Oil & Water Separation No. 2)	Drain System
9 (Wastewater Treat.)	5 (Oil & Water Separation No. 3)	CPI Separator

<b>Process No.</b>	<b>System No.</b>	<b>Equipment</b>
9 (Wastewater Treat.)	5 (Oil & Water Separation No. 3)	Drain System
10 (Storage Tanks)	2 (External Floating Roof Tanks)	Storage Tank
10 (Storage Tanks)	5 (Internal Floating Roof Tanks)	Storage Tank
12 (Miscellaneous)	1 (Sludge Handling)	Settling Tank
12 (Miscellaneous)	4 (Maintenance Drop-Out)	Drop-Out Vessel

40 CFR 63 Subpart UUU

Subpart CC addresses the emissions of air toxics from miscellaneous process vents in petroleum refineries. However, it does not address emissions from process vents on catalytic cracking units, catalytic reforming units, and sulfur recovery units. To address air toxics emissions from these sources, EPA adopted 40 CFR 63 Subpart UUU- National Emission Standard for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units (CCUs), Catalytic Reforming Units (CRUs), and Sulfur Recovery Units (SRUs).

This refinery has two SRUs but does not have a CCU or CRU. The subjectivity of the two SRUs to this regulation is denoted in the Title V permit by the listing of “HAP” in the “Emissions and Requirements” column for the following equipment, which is contained in Section D of the permit. This listing also references Section J of the permit where the applicable Subpart UUU emission limits and/or requirements are contained.

**Table 4.10 Sulfur Recovery Unit(s)**

<b>Process No.</b>	<b>System No.</b>	<b>Equipment</b>
12 (Sulfur Production)	1 (SRU No. 1)	Final Condenser
12 (Sulfur Production)	2 (SRU No. 2)	Final Condenser

The subject SRUs, which each have a capacity greater than 20 long tons per day, utilize reduction control systems followed by oxidation. Since both SRUs are also subject to 40CFR60 Subpart J, under Subpart UUU they are subject to an SO<sub>2</sub> emission limit of 250 ppmv (dry, 0% excess O<sub>2</sub>) as specified in Table 29 to the subpart. As specified in Table 30 to Subpart UUU, these SRUs and associated control systems are not subject to an operating limit under this regulation.

40 CFR 63 Subpart EEEE

This facility has identified affected sources as defined by this subpart for organic liquid distribution (non-gasoline). All affected sources are storage tanks used for storage of process treatment chemicals. Since all these tanks are less than 5,000 gallons, no controls are required per Table 2 – Emission Limits, and no work practice standards apply per Table 4 – Work Practice Standards.

Per 40 CFR 63.2338(c)(2), all equipment leak components associated with the affected sources are excluded, since all pumps, valves, and piping associated with these sources transfer organic liquids directly to non-tank process unit components.

There are no transfer racks, or transport vehicles subject to 40 CFR 63 Subpart EEEE at this facility.

All storage tanks, transfer racks, and equipment leak components not identified as an affected source under this subpart are generally part of the affected sources under 40 CFR 63 Subpart CC.

NESHAP Non-applicability

The refinery is not subject to the NESHAPs listed below.

- 40 CFR 61 Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene. The refinery does not operate any equipment in “benzene service.”
- 40 CFR 61 Subpart Y - National Emission Standards for Benzene Emissions from Benzene Storage Vessels. The refinery does not store or transfer benzene.
- 40 CFR 61 Subpart BB - National Emission Standards for Benzene Emissions from Benzene Transfer Operations. The refinery does not store or transfer benzene.
- 40 CFR 63 Subpart F - National Emission Standards for Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry. The refinery does not operate any SOCOMI operations.
- 40 CFR 63 Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater. The refinery does not operate any SOCOMI operations.
- 40 CFR 63 Subpart H - National Emission for Organic Hazardous Air Pollutants for Equipment Leaks. The refinery does not operate any SOCOMI operations.
- 40 CFR 63 Subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers. The refinery does not use chromium based water treatment chemicals.
- 40 CFR 63 Subpart R - National Emission Standards for Hazardous Air Pollutants for Gasoline Distribution Facilities. The refinery does not own or operate a bulk gasoline terminal or pipeline breakout station.
- 40 CFR 63 Subpart VV - National Emission Standards for Oil-Water Separators and Organic-Water Separators. This subpart is not applicable because no other subpart of 40 CFR Part 60, 61, or 63 references this subpart, even though this refinery controls emissions from oil-water and organic-water separators.
- 40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This subpart does not apply because this refinery does not own or operate stationary reciprocating internal combustion engines with a site rating of more than 500 brake horsepower.
- 40 CFR 63 Subpart EEE - National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Incinerators. There are no hazardous waste incinerators, cement kilns, or aggregate kilns located at this refinery.
- 40 CFR 63 Subpart GGGG – National Emission Standard for Hazardous Air Pollutants for Site Remediation. Per 63.7881(b)(3), the equipment are exempted because the site

remediation is performed under a RCRA corrective action conducted at a TSDF and is required by a State program per RCRA section 3006.

***Compliance Assurance Monitoring (CAM) (40 CFR 64)***

This regulation requires facilities of major sources to submit CAM plans to accompany the application for renewal of their respective Title V permits. However, because this application is an initial application and not a renewal application, no CAM plans are required.

**5. Periodic Monitoring Requirements**

Applicable monitoring and operational requirements for which the facility is required to comply are identified in the Title V permit (for example, Section D, F, and J and Appendix B of the final initial Title V permit).

The refinery is subject to RECLAIM monitoring, source test requirements, and other monitoring provisions that are required by federal, state or AQMD laws and regulations. Section F of the permit contains the monitoring and source test permit conditions imposed by Regulation XX. More specifically, it summarizes the monitoring and testing requirements for Major, Large and Process units at NO<sub>x</sub> and SO<sub>x</sub> RECLAIM facilities. Finally, Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64 do not currently apply to any of the permitted emission sources at this facility.

As specified in AQMD Rule 3004(a)(4), the final initial permit includes periodic monitoring conditions for equipment that is subject to SIP-approved, federally enforceable rules, which do not require sufficient monitoring to assure compliance with emission limitations or other requirement of the rule. Permit conditions in Section D and H of the permit that fulfill Title V periodic monitoring requirements are tagged with the following: *Rule 3004(a)(4)-Periodic Monitoring, 12-12-1997*. These periodic monitoring conditions are also tagged with the underlying rule(s) for which the condition is fulfilling the monitoring requirement. In some cases, existing monitoring conditions that were installed under NSR fulfill the periodic monitoring requirements for other rules or regulations. For these cases, the monitoring condition was tagged with Rule 3004(a)(4) and the underlying rule(s) for which the condition is fulfilling the monitoring requirement.

A draft Periodic Monitoring Guidance document was published by the AQMD in August 1997. A public consultation was held to solicit public input. The final Periodic Monitoring Guideline Document was published by the AQMD in November 1997. This guideline was used to establish the periodic monitoring requirements in the Title V permit. In addition, the AQMD used the CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Requirements in SIP (June 24, 1999) for applicable opacity limits, grain loading limits for material handling equipment, and for sulfur content of fuels. Furthermore, the AQMD used the CAPCOA/ARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP for combustion sources (July 2001). These documents are included in Appendix II.

## 6. Title V Permit Format

The Title V permit comprises eleven sections and two appendices. Each section is devoted to a particular function as summarized below:

### **Section A Facility Information**

This section contains operator name, facility location and mailing address. It also lists the name of the responsible official and contact person for the facility. Lastly, this section indicates whether Regulation XXX and RECLAIM apply to the facility.

### **Section B RECLAIM Annual Emission Allocation**

This section applies to RECLAIM facilities only and lists NO<sub>x</sub> and SO<sub>x</sub> allocations for the facility. This facility is subject to both the NO<sub>x</sub> and SO<sub>x</sub> requirements of RECLAIM.

### **Section C Facility Plot Plan**

This section is reserved for the development of the facility plot plan in the future.

### **Section D Facility Description and Equipment Specific Conditions**

This section describes equipment at the refinery that has been issued permits to operate. It also includes facility-wide operating conditions, emission limitations, the rules for which the emission limits and permit conditions are derived, and the periodic monitoring requirements as appropriate. The description of the process and equipment is structured in the following manner:

#### Process

A process is the largest grouping of equipment under the Title V permit, which includes all equipment involved in the making of final product from raw feed. A process can end at an intermediate product if the succeeding process is significantly different.

#### System

A system is the combination of equipment into a unit which is a logical subsystem of a process. A system can be used to identify individual process lines, or it can separate a long process line into separate functions. The main use of this grouping will be to separate a large process into manageable groups.

#### Equipment

This column describes equipment contained within a system or a process. It contains information necessary to identify equipment and ensure compliance with rules and regulations such as dimensions of a tank, heat input of a heater, horsepower of an engine. This section also lists the equipment application number (A/N). The application number is an identification number issued by the AQMD to the application submitted to the AQMD by the applicant for a Permit to Construct or Permit to Operate a piece of equipment. A facility is required to

submit a permit application when it plans to install a new piece of equipment, alter an existing piece of equipment, or modify a permit condition. An application number in the Title V permit changes each time the AQMD approves a new application.

Device Identification (I.D.) Number

Each piece of equipment is assigned a unique I.D. number. When a piece of equipment is modified it retains its existing I.D. number. However, when it is removed from service, the I.D. number is retired and will not be used to identify another piece of equipment at this facility.

Connected to

This column is used to identify air pollution control equipment that is connected to a specific piece of equipment at the refinery.

RECLAIM Source Type/Monitoring Unit

This column is used to identify equipment classification pursuant to the RECLAIM program. The classification of major source, large source and process units are defined in Rule 2012. The equipment classification is assigned to NOx and SOx emission sources subject to RECLAIM. Each classification of equipment is subject to a specific monitoring requirement under RECLAIM.

Emissions and Requirements

This column lists emission limits applicable to each piece of equipment. It also lists the rules for which the limits were derived. If AQMD adopted a rule that has not yet been approved into the State Implementation Plan (SIP), emission limits established by both the SIP-approved and non SIP-approved versions of the rule are included in the permit.

Conditions

This column lists specific permit conditions applicable to the facility, process, system or equipment. A facility level condition applies to the whole facility and is designated by the letter F. The process conditions apply to the entire process and are designated by the letter P. The system conditions apply to the entire system and are designated by the letter S. The equipment (device) level conditions are designated by other letters depending on the category of conditions such as monitoring, recordkeeping, etc. Each permit condition references the law or rule for which the requirements in the condition were derived. If AQMD adopted a rule that has not yet been approved into the SIP, emission limits established by both the SIP-approved and non SIP-approved versions of the rule are included in the permit. One category of the device level condition is the periodic monitoring condition.

**Section E Administrative Conditions**

This section contains general administrative permit conditions that apply to all facilities. The conditions listed in this section apply to all permitted equipment at

the facility unless superseded by other conditions listed elsewhere in the facility permit.

**Section F RECLAIM Monitoring & Source Testing Requirements**

This section contains Monitoring and source testing permit conditions imposed by Regulation XX. It summarizes the monitoring and testing requirements for Major, Large and Process units at RECLAIM facilities.

**Section G RECLAIM Recordkeeping & Reporting Requirements**

This section contains recordkeeping and reporting requirements specified in Regulation XX. It summarizes the recordkeeping and reporting requirements for RECLAIM sources.

**Section H Permit to Construct and Temporary Permit to Operate**

The permit format in this section is the same as described for Section D above. However, equipment listed in this section has not been issued permits to operate, but were issued a permit to construct and/or a temporary permit to operate.

**Section I Compliance Plans & Schedules**

This section lists active compliance plans specified in the SIP-approved rules.

**Section J Air Toxics**

This section lists permit conditions pertaining to NESHAP/MACT requirements.

**Section K Title V Administration**

This section lists the Title V administrative conditions. They are the same for all Title V facilities, except for the list of applicable rules table at the end of the section. The table at the end of the section lists all applicable rules referenced in Sections D and H (emission limit and conditions) and any rules that are referenced to the facility. This table also indicates which rules are federally enforceable and which are only enforceable by AQMD.

**Appendix A NO<sub>x</sub> and SO<sub>x</sub> Emitting Equipment Exempt from Written Permit Pursuant to Rule 219**

This section lists classes of NO<sub>x</sub>- and SO<sub>x</sub>- emitting Rule 219 exempt equipment present at the facilities that are subject to RECLAIM.

**Appendix B Rule Emission Limits**

Specific emission limits that cannot be listed in the Emissions and Requirements column of Sections D and H and which were added as emission limit type nine are included in this appendix.

**7. Permit Features**

Permit Shield

A permit shield is an optional part of a Title V permit that gives the facility an explicit protection from requirements that do not apply to the facility. A permit shield is a provision in a permit that states that compliance with the conditions of the permit shall be deemed compliance with all identified regulatory requirements. To incorporate a permit shield into the Title V permit involves submission of applications for change of conditions for each equipment affected by the permit shield. Permit shields are addressed in Rule 3004 (c). This facility has not applied for a permit shield for any of the equipment at the refinery.

Alternate Operating Scenarios

An alternative operating scenario (AOS) is a set of provisions and conditions in a permit that allow the operator to switch back and forth between alternative modes of operation without submitting an application for a permit revision before each switch. However, each AOS must be evaluated for compliance with AQMD rules and regulations and applicable State and Federal requirements. AOS is addressed in Rule 3005 (j). This facility has not applied for an AOS for any of the equipment at the refinery.

Emissions Trading

This facility is subject to emissions trading requirements under Regulation XX.

Prevention of Significant Deteriorations (PSD) Permits

PSD is a federal program for permitting new and modified sources that emit air pollutants for which the AQMD is classified as in attainment with the National Ambient Air Quality Standards (NAAQS). The facility has not been issued a PSD permit by either the EPA or the AQMD.

EPA New Source Review (NSR) Permits

NSR is a federal program for permitting new and modified sources that emit air pollutants for which the AQMD is classified as in Non-attainment with NAAQS. Before SIP-approval of the AQMD NSR Rule in 1978, EPA issued NSR permits for new construction and/or equipment modifications in the AQMD. A check of the records indicates that there are no NSR permits issued by the EPA for the Carson refinery.

**8. Summary of Emissions and Health Risks**

Summary of Refinery Criteria Air Pollutant and Toxic Air Contaminant Emissions

This section contains a summary of the Criteria Air Pollutant (CAP) and Toxic Air Contaminant (TAC) emissions for the refinery as reported in the refinery’s Annual Emission Report (AER) for fiscal year 2005-2006.

**Table 8.1 Criteria Pollutant Emissions  
From Annual Reported Emissions for Fiscal Year 2006 – 2007**

<b>Pollutant</b>	<b>Emissions (tons/year)</b>
NOx	343
CO	448
VOC	123
PM	64
SOx	284

**Table 8.2 Toxic Air Contaminants Emissions (TAC)  
Annual Reported Emissions for Fiscal Year 2006 – 2007**

Reported TACs	Emissions (lbs/yr)
1,2,4-Trimethylbenzene	578
1,3-Butadiene*	24
Acetaldehyde*	448
Acrolein*	0.36
Ammonia	943
Arsenic*	9.4
Asbestos*	< 0.001
Benzene*	207
Beryllium*	0.10
Cadmium*	2.5
Carbonyl sulfide*	7576
Chlorine*	0.84
Chromium (VI)*	0.04
Copper	13
Diesel engine exhaust, particulate matter	67
Diethylene glycol monomethyl ether	57
Ethylbenzene*	418
Flurocarb (CL)	82
Formaldehyde*	343
Glycol ethers (and their acetates)*	28
Hexane*	1654
Hexamethylene-1,6-diisocyanate*	2.6
Hydrochloric acid*	1.0
Hydrogen sulfide*	2180
Lead (inorganic)*	5.4
m-Xylene*	0.33
Methyl t-Butylether*	15
Manganese*	26
Mercury*	2.4
Methanol*	5890
Methyl ethyl ketone*	51
Naphthalene*	240
Nickel*	28
PAHs, total, with components not reported*	25
Propylene glycol monomethyl ether	28
Propylene glycol monomethyl ether acetate	16
Selenium*	0.02
Styrene*	0.44
Sulfuric Acid	7317
Toluene*	1375
Trichloroethylene*	3230

Reported TACs	Emissions (lbs/yr)
Xylenes*	1944
o-Xylene*	0.11

\*TACs that are also identified as Hazardous Air Pollutants (HAPs). Total HAPs reported are 25,728 lbs/yr.

#### Health Risk from Toxic Air Contaminants

The Carson refinery is subject to review by the Air Toxics Information and Assessment Act (AB2588). The Final Facility Health Risk was approved on February 9, 2001 with the following risk factors.

Cancer Risk	3.1 in one million
Acute Hazard Index	0.67
Chronic Hazard Index	0.26

### **9. Compliance History**

The Carson refinery is subject to the terms of a consent decree entered with the U.S. District Court (Southern District of Texas) on January 27, 2005; and a Hearing Board Order entered for Case No. 4900-80 regarding compliance with District Rule 1118.

#### Consent Decree (Civil Action No. H-05-0258)

The subject Consent Decree (CD) was filed in U.S. District Court for the Southern District in Texas on January 27, 2005. This Consent Decree is the result of a settlement between ConocoPhillips and EPA over alleged violations of certain Clean Air Act and CERCLA/EPCRA provisions. This comprehensive settlement covers ConocoPhillips refineries located in Belle Chasse, La.; Linden, N.J.; Borger and Sweeny, Texas; Carson and Wilmington, Calif.; Ferndale, Wash.; Rodeo and Santa Maria, Calif.; Trainer, Pa.; and Roxanna and Hartford, Ill. Under this agreement, ConocoPhillips agreed to the following at the Carson Refinery:

- All heaters, boilers, flares, and SRUs, which were not already subject to 40CFR60 Subpart J, became affected sources subject to this NSPS. As required by the consent decree, ConocoPhillips submitted applications to integrate certain requirements into the Carson refineries RECLAIM facility permit. These requirements are included in the refineries final initial Title V permit. For the requirements not yet fulfilled, ConocoPhillips submitted a compliance schedule as provided in Attachments 1 & 2.
- Enhancement of the refineries Benzene Waste Operations NESHAP (40CFR61 Subpart FF) program.
- Enhancements of the refineries Leak Detection and Repair (LDAR) program.
- Implementation of new investigative, reporting, and corrective action procedures for flares.

Attachment 1 includes the latest Consent Decree Semiannual Report (January 1-June 30, 2008), as provided by the refinery, for emission standards and limitations from the Consent Decree as well as dates of compliance for the requirements not yet fulfilled. Attachment 2 includes the table of Compliance Plan for Flaring Devices at the Los Angeles Refinery.

### Variance(s)

*Hearing Board Case No. 4900-80:* AQMD Rule 1118 was amended in November of 2005. Subsection (g)(3) of the amended rule specifies that owners or operators with flares subject to the rule shall install and operate a flare monitoring system (FMS) by July 1, 2007 to perform monitoring and recording of the parameters specified in the second section of Table 1 of the rule. This monitoring includes gas flow, gas higher heating value, and total sulfur concentration (TSC) of the gas. Subsections (g)(3) and (j)(1)(C) contain performance specifications for the monitors. Rule 1118(j)(1)(C) also requires that the accuracy of the flow meter be verified annually according to manufacturer specifications. Additionally, Rule 1118 contains reporting requirements that are based on these monitoring requirements.

The ConocoPhillips Carson Refinery contains the following two General Service Flares that are subject to Rule 1118: East Flare (C465) and West Flare (C469). At the time of the rule adoption, technical challenges and issues related to feasibility, reliability, maintainability, accuracy, and safety that had the potential to delay implementation of the specified monitoring systems. Due to these known issues, the AQMD Governing Board adopted a resolution directing AQMD staff to work with the Western States Petroleum Association and its members to resolve outstanding issues. Pilot projects for the development of TSC and HHV analyzers was not completed until March 2008 and the AQMD has approved TSC and HHV analyzers since the analyzers have demonstrated compliance with the technical requirements of Rule 1118. Under the variances issued by the Hearing Board, the refineries will have until September 1, 2008, to complete design, acquisition, and installation of the required analyzers.

As required by Rule 3004(a)(10)(C), condition I1.1 has been added to the affected equipment in section D and H of the permit requiring the operator to comply with all the conditions of the variance including the submittal of progress reports. A copy of each of the documents related to this regular variance is included in Appendix V to this SOB. The issuance of the regular variance by the AQMD Hearing Board does not affect federal or citizen enforceability of the subject requirements.

### Order(s) for Abatement

The refinery is not currently subject to any AQMD Orders for Abatement.

### Notices to Comply and Notices of Violation

As noted, the refinery has been in continuous operation since 1921. Since the inception of Los Angeles County Air Pollution Control District in 1947 the refinery has been subject to both self-reporting requirements and AQMD inspections. Further information regarding the facility's compliance status is available on the internet under the AQMD's "Facility Information Detail" database (FIND, at [http://www.aqmd.gov/webappl/fim/prog/novnc.aspx?fac\\_id=800362](http://www.aqmd.gov/webappl/fim/prog/novnc.aspx?fac_id=800362)).

Likewise, the compliance documentation for Variances and Abatement Orders is also available on the internet under the AQMD's "Facility Information Detail" database (FIND, at [http://www.aqmd.gov/webappl/fim/prog/novnc.aspx?fac\\_id=800362](http://www.aqmd.gov/webappl/fim/prog/novnc.aspx?fac_id=800362)).

## 10. Compliance Certification

By virtue of the title V permit application and issuance of this permit, the reporting frequency for compliance certification for the refinery shall be annual.

## 11. Appendices

In order to minimize printing, all of the following appendices are available on the AQMD website as shown below. Please contact Andrew Chew at (909) 396-2493 for assistance in finding the information on the website.

- I. Technical Guidance Document For the Title V Permit Program (March 2005, Version 4.0) (<http://www.aqmd.gov/titlev/TGD.html>)
- II. Periodic Monitoring Guidance Documents
  - A. AQMD Periodic Monitoring Guidelines for Title V Facilities (November 1997) (<http://www.aqmd.gov/titlev/pdf/PeriodicMonitoringGuidelines-97.pdf>)
  - B. CAPCOA/CARB/EPA Region IX Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP (June 1999) (<http://www.arb.ca.gov/fcaa/tv/tvinfo/pmrec624.pdf>)
  - C. CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources (July 2001) (<http://www.arb.ca.gov/fcaa/tv/tvinfo/pmrecoms.pdf>)
- III. Summary Report of Notice of Violations (2005 - 2008). Further information regarding the facility's compliance status is available on the internet under the AQMD's "Facility Information Detail" database (FIND, at [http://www.aqmd.gov/webappl/fim/prog/novnc.aspx?fac\\_id=800362](http://www.aqmd.gov/webappl/fim/prog/novnc.aspx?fac_id=800362)).
- IV. Variances and Abatement Orders (2005 - 2008). Further information regarding the facility's compliance status is available on the internet under the AQMD's "Facility Information Detail" database (FIND, at [http://www.aqmd.gov/webappl/fim/prog/hbdisplay.aspx?fac\\_id=800362](http://www.aqmd.gov/webappl/fim/prog/hbdisplay.aspx?fac_id=800362)).

**ATTACHMENT 1**

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**CONSENT DECREE SEMIANNUAL REPORT SUBMITTED BY  
CONOCOPHILLIPS, CARSON REFINERY TO EPA  
January 1, 2008 to June 30, 2008**



**Los Angeles Refinery**  
1520 East Sepulveda Blvd.  
Carson, CA 90745

July 30, 2008

**CERTIFIED MAIL/RETURN RECEIPT REQUESTED**

Director, Air Enforcement Section  
Office of Civil Enforcement  
U.S. Environmental Protection Agency  
Mail Code 2242-A  
1200 Pennsylvania Avenue, N.W.  
Ariel Rios Building South  
Room 1119  
Washington, DC 20460-0001

**Re: ConocoPhillips Los Angeles Refinery Carson  
Consent Decree Semiannual Progress Report  
Reporting Period: January 1, 2008 to June 30, 2008  
Civil Action No. H-05-0258**

Pursuant to Section IX of the Consent Decree between ConocoPhillips and the United States of America (Civil Action No. H-05-0285), please find enclosed the Consent Decree Semiannual Progress Report for the ConocoPhillips Los Angeles Refinery Carson for the period from January 1, 2008 through June 30, 2008. The enclosed report contains the information required by Section IX of the above-referenced Consent Decree.

For questions regarding this submittal, please contact me at (310) 952-6120.

Very truly yours,

Kristin Wisdom  
Director, Environmental Services

Enclosures

cc: Director, Air Enforcement Division  
Office of Civil Enforcement  
c/o Matrix New World Engineering Inc.  
120 Eagle Rock Avenue, Suite 207  
East Hanover, NJ 07936-3159

080344

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cc: Deborah Jordan (w/o attachments)  
Air Division Director  
USEPA Region 9  
Mail Code AIR-1  
75 Hawthorne Street  
San Francisco, CA 94105

Margaret Waldon (w/ attachments)  
Air Pollution Branch  
USEPA Region 9  
Mail Code AIR-5  
75 Hawthorne Street  
San Francisco, CA 94105

080344

**ConocoPhillips Consent Decree Semiannual Report**  
**Los Angeles Refinery - Carson Plant Report for the Period January 1, 2008 to June 30, 2008**

Paragraph	Task Description (1)	Due Date	Section	Status / Comments
100	<p>Summary: Monitor combustion units with NOx CEMS or PEMS</p> <p>Beginning no later than one-hundred eighty (180) days after installing Qualifying Controls on and commencing operation of a Combustion Unit that will be used to satisfy the requirements of Paragraph 95, COPC will monitor the Combustion Units as follows:</p> <p>(a) For Combustion Units with a maximum physical capacity greater than 150 mmBTU/hr (HHV), install or continue to operate a NOx CEMS;</p> <p>(b) For Combustion Units with a maximum physical capacity greater than 100 mmBTU/hr (HHV) but less than or equal to 150 mmBTU/hr (HHV), install or continue to operate a NOx CEMS, or monitor NOx emissions with a PEMS developed and operated pursuant to the requirements of Appendix E of this Consent Decree.</p> <p>(c) For Combustion Units with a maximum physical capacity of less than or equal to 100 mmBTU/hr (HHV), conduct an initial performance test and any periodic tests that may be required by EPA or by the applicable State or local permitting authority under other applicable regulatory authority. The results of the initial performance testing will be reported to EPA and the Applicable Co-Plaintiff.</p> <p>COPC will use Method 7E or an EPA-approved alternative test method to conduct initial performance testing for NOx emissions required by subparagraph 100(c). Monitoring with a PEMS required by this Paragraph will be conducted in accordance with the requirements of Appendix E. Units with Qualifying Controls installed before the Date of Entry that are subject to this Paragraph will comply with this Paragraph by no later than June 30, 2006.</p>	180 days after installation	H&B	Not applicable at this time. Qualifying controls will be installed on Boiler 10 by 12/31/08.
98	<p>Summary: Install Qualifying Controls and apply for emission limits - achieve 2/3 of 4951 ton reduction</p> <p>By December 31, 2008, COPC will install sufficient Qualifying Controls and have applied for emission limits from the appropriate permitting authority sufficient to achieve two-thirds of the NOx emission reductions required by Paragraph 95.</p>	12/31/2008	H&B	There were no installations of Qualifying Controls at LARG during this reporting period.
99	<p>Summary: Qualifying Controls at 30% of total maximum heat capacity</p> <p>By no later than December 31, 2012, Combustion Units with Qualifying Controls will represent at least 30% of the total maximum heat input capacity or, if less, the allowable heat input capacity, as shown in Appendix B, of all of the Combustion Units located at a particular Covered Refinery. This 30% requirement will apply to the Combustion Units at the Wood River Refinery exclusive of the Distilling West Combustion Units. Any Qualifying Controls can be used to satisfy this requirement, regardless of when the Qualifying Controls were installed.</p>	12/31/2012	H&B	Not applicable at this time.

(1) This is a paraphrase of the CD paragraph for reference purposes only. Please refer to the CD for the actual language of the requirements.

**ConocoPhillips Consent Decree Semiannual Report**  
**Los Angeles Refinery - Carson Plant Report for the Period January 1, 2008 to June 30, 2008**

Paragraph	Task Description (1)	Due Date	Section	Status / Comments
100	<p>Summary: If controls installed before Date of Entry, monitor with CEMS or PEMS</p> <p>Beginning no later than one-hundred eighty (180) days after installing Qualifying Controls on and commencing operation of a Combustion Unit that will be used to satisfy the requirements of Paragraph 95, COPC will monitor the Combustion Units as follows:</p> <p>(a) For Combustion Units with a maximum physical capacity greater than 150 mmBTU/hr (HHV), install or continue to operate a NOx CEMS;</p> <p>(b) For Combustion Units with a maximum physical capacity greater than 100 mmBTU/hr (HHV) but less than or equal to 150 mmBTU/hr (HHV), install or continue to operate a NOx CEMS, or monitor NOx emissions with a PEMS developed and operated pursuant to the requirements of Appendix E of this Consent Decree.</p> <p>(c) For Combustion Units with a maximum physical capacity of less than or equal to 100 mmBTU/hr (HHV), conduct an initial performance test and any periodic tests that may be required by EPA or by the applicable State or local permitting authority under other applicable regulatory authority. The results of the initial performance testing will be reported to EPA and the Applicable Co-Plaintiff.</p> <p>COPC will use Method 7E or an EPA-approved alternative test method to conduct initial performance testing for NOx emissions required by subparagraph 100(c). Monitoring with a PEMS required by this Paragraph will be conducted in accordance with the requirements of Appendix E. Units with Qualifying Controls installed before the Date of Entry that are subject to this Paragraph will comply with this Paragraph by no later than June 30, 2006.</p>	6/30/2006	H&B	Not required as no Qualifying Controls were installed at LARC prior to Date of Lodging of the Consent Decree.
112	<p>Summary: Comply with emissions limits at 40 CFR 60.104(a)(1) at Carson and Wilmington (submit permit application by 6/30/05)</p> <p>NSPS Applicability of Heaters and Boilers at the LAR Carson and Wilmington Plants. By no later than the Date of Lodging, all heaters and boilers at the LAR Carson and Wilmington Plants will comply with the emissions limits at 40 C.F.R. § 60.104(a)(1). By no later than March 31, 2005, COPC will submit one or more proposed AMP(s) to EPA for approval. All heaters and boilers at the LAR Carson and Wilmington Plants will be affected facilities, as that term is used in the NSPS, 40 C.F.R. Part 60, and will be subject to and comply with the requirements of NSPS Subparts A and J for fuel gas combustion devices upon EPA's approval of the AMP.</p>	1/27/2005	H&B	Complete. A CEMS that continuously monitors and records the concentration (dry basis) of H2S in the common source of fuel gas is used to determine compliance with the NSPS J emission limit. CEMS performance and excess emissions information for this reporting period is included in Attachments 4 and 6.
112 256	<p>Summary: Submit permit application – Comply with emission limits at 40 CFR 60.104(a)(1)</p>	6/30/2005	H&B	Complete. Permit applications for the fuel gas fired heaters and boilers requesting the NSPS J emission limit for fuel gas combustion were submitted to the local permitting authority (ie, SCAQMD) on 6/30/05. The document number is E050267.
112	<p>Summary: Submit AMP for Carson and Wilmington to EPA for approval</p> <p>NSPS Applicability of Heaters and Boilers at the LAR Carson and Wilmington Plants. By no later than the Date of Lodging, all heaters and boilers at the LAR Carson and Wilmington Plants will comply with the emissions limits at 40 C.F.R. § 60.104(a)(1). By no later than March 31, 2005, COPC will submit one or more proposed AMP(s) to EPA for approval. All heaters and boilers at the LAR Carson and Wilmington Plants will be affected facilities, as that term is used in the NSPS, 40 C.F.R. Part 60, and will be subject to and comply with the requirements of NSPS Subparts A and J for fuel gas combustion devices upon EPA's approval of the AMP.</p>	3/31/2005	H&B	An Alternative Monitoring Plan (AMP) for the two Coker Unit heaters was submitted to EPA on 3/30/05. The document number is E050113. The heaters are fired with commonly supplied refinery fuel gas and a Merox off-gas stream. The Merox off-gas stream averages less than 2% of the amount of refinery fuel gas fired and is not monitored with an H2S CEMS. The AMP requested that the H2S CEMS for the common fuel gas system be deemed representative, per 40 CFR 60.105(a)(4)(ii), for the two heaters since the Merox off-gas stream does not contain H2S. A sample of the Merox off-gas stream is analyzed for H2S content on a quarterly basis (in accordance with the AMP) in order to demonstrate that there is not any H2S in this stream.

(1) This is a paraphrase of the CD paragraph for reference purposes only. Please refer to the CD for the actual language of the requirements.

**ConocoPhillips Consent Decree Semiannual Report**  
**Los Angeles Refinery - Carson Plant Report for the Period January 1, 2008 to June 30, 2008**

Paragraph	Task Description (1)	Due Date	Section	Status / Comments																					
117	<p>Summary: Elimination/reduce of fuel oil burn (certain exceptions for Trainer)</p> <p>Elimination/Reduction of Fuel Oil Burning.</p> <p>(a) Existing Combustion Devices. From the Date of Lodging of this Consent Decree, COPC will not burn Fuel Oil in any existing combustion device at the Covered Refineries except: (i) during periods of Natural Gas Curtailment, Test Runs, or operator training; or (ii) for the Trainer Refinery, as set forth in Paragraph 118. These exemptions are not available for any combustion devices at Distilling West. Nothing in this prohibition limits COPC's ability to burn Torch Oil in an FCCU regenerator to assist in starting, restarting, maintaining hot standby, or maintaining regenerator heat balance.</p> <p>(b) Combustion Devices Constructed After Lodging. After the Date of Lodging, COPC will not construct any new combustion device at the Covered Refineries that burns fuel oil unless the air pollution control equipment controlling the combustion device either (i) has an SO control efficiency of 90% or greater; or (ii) achieves an SO<sub>2</sub> concentration of 20 ppm at 0% O<sub>2</sub> or less on a three-hour rolling average basis. Nothing in this Paragraph will exempt COPC from securing all necessary permits before constructing a new combustion device.</p>	1/27/2005	H&B	The combustion devices are listed in the facility permit and the equipment descriptions do not specify use of liquid fuels. For this reason, fuel oil was not used during this reporting period.																					
117 256	Summary: Submit permit application (eliminate fuel oil burning)	6/30/2005	H&B	Not necessary as gas is the only fuel allowed by permit.																					
119	<p>Summary: SRU's are NSPS compliant at Alliance, Borger, Ferndale, LAR Carson, Sweeny, Wood River (submit permit application by 6/30/05)</p> <p>NSPS Applicability of SRPs. All of COPC's Sulfur Recovery Plants will be subject to NSPS Subpart J as affected facilities and will comply with the requirements of NSPS Subparts A and J, including all monitoring, recordkeeping, reporting, and operating requirements, by the following dates:</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">SRP</th> <th style="text-align: left;">Trains Comprising the SRP</th> <th style="text-align: left;">NSPS Applicability Date</th> </tr> </thead> <tbody> <tr> <td>Alliance SRP</td> <td>SRU 591 SRU 592</td> <td>Date of Lodging</td> </tr> <tr> <td>Borger</td> <td>Unit 34 Unit 43</td> <td>Date of Lodging</td> </tr> <tr> <td>Ferndale SRP</td> <td>Unit 19</td> <td>Date of Lodging</td> </tr> <tr> <td>LAR Carson SRP</td> <td>LAR Carson Unit 1 LAR Carson Unit 2</td> <td>Date of Lodging</td> </tr> <tr> <td>Sweeny SRP</td> <td>SRU A SRU B SRU C</td> <td>Date of Lodging</td> </tr> <tr> <td>Wood River SRP</td> <td>SRU A SRU C SRU D</td> <td>Date of Lodging</td> </tr> </tbody> </table> <p>The SRPs set forth in this Paragraph will constitute the "Covered SRPs" for purposes of this Decree.</p>	SRP	Trains Comprising the SRP	NSPS Applicability Date	Alliance SRP	SRU 591 SRU 592	Date of Lodging	Borger	Unit 34 Unit 43	Date of Lodging	Ferndale SRP	Unit 19	Date of Lodging	LAR Carson SRP	LAR Carson Unit 1 LAR Carson Unit 2	Date of Lodging	Sweeny SRP	SRU A SRU B SRU C	Date of Lodging	Wood River SRP	SRU A SRU C SRU D	Date of Lodging	1/27/2005	SRP	The SRP was already subject to NSPS prior to the Consent Decree. CEMS performance and excess emissions information for this reporting period is included in Attachments 4 and 6.
SRP	Trains Comprising the SRP	NSPS Applicability Date																							
Alliance SRP	SRU 591 SRU 592	Date of Lodging																							
Borger	Unit 34 Unit 43	Date of Lodging																							
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**ConocoPhillips Consent Decree Semiannual Report**  
**Los Angeles Refinery - Carson Plant Report for the Period January 1, 2008 to June 30, 2008**

Paragraph	Task Description (1)	Due Date	Section	Status / Comments
119 256	Summary: Submit permit application for NSPS applicability on SRU's	6/30/2005	SRP	The facility permit indicated NSPS applicability prior to 6/30/05.
123	<p>Summary: Control sulfur pit emission at Bayway, Ferndale, Carson, Sweeny, Wood River</p> <p>Elimination, Control, and/or Inclusion in Monitoring of Sulfur Pit Emissions. By no later than the following dates for the Covered SRPs, COPC will either eliminate, control, and/or include and monitor as part of a Covered SRP's emissions under 40 C.F.R. § 60.104(a)(2), all sulfur pit emissions. The LAR Wilmington Plant and the Rodeo Refinery will upgrade existing systems to meet this requirement. "Control for purposes of this Paragraph includes routing sulfur pit emissions into a contactor box of a Beavon Stretford TGU evaporator. For purposes of this Paragraph, the pelletizer at the Santa Maria Refinery and the acid plant at the LAR Wilmington Plant are not "Covered SRPs."</p> <p>SRP Compliance Date</p> <p>Bayway SRP Date of Lodging            Ferndale SRP Date of Lodging            LAR Carson SRP Date of Lodging            Sweeny SRP Date of Lodging            Wood River SRP Date of Lodging</p>	1/27/2005	SRP	Complete. The sulfur pits had controls installed prior to 1/27/05. Each sulfur pit is vented through a scrubber to the suction of the Claus air blowers.
123 256	Summary: Submit permit application (Control sulfur pit emission at Bayway, Ferndale, Carson, Sweeny, Wood River) - COPC voluntarily agreed to include eliminating, controlling, or including & monitoring of sulfur pit vents in Title V permits.	6/30/2005	SRP	Complete. The facility permit was updated to include control of the sulfur pit emissions prior to 6/30/05.

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**ConocoPhillips Consent Decree Semiannual Report**  
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Paragraph	Task Description (1)	Due Date	Section	Status / Comments														
124	<p>Summary: Monitor emission points and install CEMS (except when submitting AMP) at Alliance, Borger, Ferndale, Carson, Sweeny, Wood River</p> <p>Monitoring all Emissions Points and Installing CEMS. By no later than the following dates for the Covered SRPs, COPC will monitor all tail gas emission points (stacks) to the atmosphere from the respective SRP and will install and operate a CEMS in accordance with NSPS Subpart J, except where COPC timely submits an AMP:</p> <table border="0"> <tr> <td>SRP</td> <td>Date</td> </tr> <tr> <td>Alliance SRP</td> <td>Date of Lodging</td> </tr> <tr> <td>Borger SRP</td> <td>Date of Lodging</td> </tr> <tr> <td>Ferndale SRP</td> <td>Date of Lodging</td> </tr> <tr> <td>LAR Carson SRP</td> <td>Date of Lodging</td> </tr> <tr> <td>Sweeny SRP</td> <td>Date of Lodging</td> </tr> <tr> <td>Wood River SRP</td> <td>Date of Lodging</td> </tr> </table> <p>COPC must monitor all emissions from the Tail Gas Units associated with these SRPs through the use of an NSPS-compliant CEMS, but COPC may submit an AMP, by no later than March 31, 2005, for any CEMS that, as of the Date of Lodging, has lower span values than NSPS specifications. To the extent that COPC seeks an AMP to monitor any other tail gas emission point to the atmosphere, COPC will submit complete AMPs for all such points by no later than March 31, 2005. If EPA does not approve an AMP, COPC will install and operate a CEMS at the respective emission point in accordance with NSPS Subpart J by no later than eighteen (18) months after receipt of EPA's disapproval.</p>	SRP	Date	Alliance SRP	Date of Lodging	Borger SRP	Date of Lodging	Ferndale SRP	Date of Lodging	LAR Carson SRP	Date of Lodging	Sweeny SRP	Date of Lodging	Wood River SRP	Date of Lodging	1/27/2005	SRP	Complete. An NSPS compliant CEMS was operational prior to 1/27/05.
SRP	Date																	
Alliance SRP	Date of Lodging																	
Borger SRP	Date of Lodging																	
Ferndale SRP	Date of Lodging																	
LAR Carson SRP	Date of Lodging																	
Sweeny SRP	Date of Lodging																	
Wood River SRP	Date of Lodging																	
124	<p>Summary: Submit AMP, if elected for tail gas emission monitoring</p> <p>Monitoring all Emissions Points and Installing CEMS. By no later than the following dates for the Covered SRPs, COPC will monitor all tail gas</p> <p>COPC must monitor all emissions from the Tail Gas Units associated with these SRPs through the use of an NSPS-compliant CEMS, but COPC may submit an AMP, by no later than March 31, 2005, for any CEMS that, as of the Date of Lodging, has lower span values than NSPS specifications. To the extent that COPC seeks an AMP to monitor any other tail gas emission point to the atmosphere, COPC will submit complete AMPs for all such points by no later than March 31, 2005. If EPA does not approve an AMP, COPC will install and operate a CEMS at the respective emission point in accordance with NSPS Subpart J by no later than eighteen (18) months after receipt of EPA's disapproval.</p>	3/31/2005	SRP	An AMP for the Sulfur Recovery Plants was submitted to EPA on 3/4/05. The proposed monitoring alternative was exclusive use of the RECLAIM CEMS SO2 analyzers (span value is 100 ppm) in lieu of the existing NSPS J analyzers (span value is 500 ppm).														

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
125	<p>Summary: Submit PMO Plan (Preventive Maintenance and Operation Plan)</p> <p>Preventive Maintenance and Operation Plans for the Covered Refineries. By no later than April 1, 2005, COPC will submit to EPA and the Applicable Co-Plaintiff a Preventive Maintenance and Operation Plan ("PMO Plan") for the enhanced operation and maintenance of the Covered Refineries' SRPs, the associated Tail Gas Units ("TGU's"), any supplemental control devices, and the Upstream Process Units for each Covered Refinery. The PMO Plan will be a compilation of COPC's approaches for exercising good air pollution control practices and for minimizing SO<sub>2</sub> emissions at each of these Refineries. The PMO Plan will identify actions to promote the continuous operation of the Covered SRPs between scheduled maintenance turnarounds with minimization of emissions. The PMO Plan will include, but not be limited to, sulfur shedding procedures, startup and shutdown procedures, hot standby procedures, emergency procedures, and schedules to coordinate maintenance turnarounds of the SRP Claus trains and TGU's to coincide with scheduled turnarounds of major Upstream Process Units. COPC will comply with the PMO Plan at all times, including periods of startup, shutdown, and Malfunction of the SRP or M</p>	4/1/2005	SRP	Complete. A Preventive Maintenance and Operation Plan (PMOP) was submitted to EPA on 3/31/05. The document number is E050119.
125	<p>Summary: Report any PMO Plan modifications in annual report under Section IX</p> <p>Any modifications made by COPC to PMO Plans will be identified in each January 31 report due under Section IX of this Decree. Compliance with a PMO Plan will constitute compliance with this Paragraph and with the expectations of so much of Paragraph 159(a) as relates to the PMO Plan.</p>	1/31/2007 and each 1/31	SRP	The PMOP was not modified during 2007.
141	<p>Summary: Submit Compliance Plan for Flaring Devices</p> <p>Compliance Plan for Flaring Devices (Paragraphs 141 - 142). For each Covered Refinery, COPC will submit a Compliance Plan for Flaring Devices to EPA and the Applicable Co-Plaintiff by no later than December 31, 2007. The Plan will have the objective of reducing to the extent practicable: (i) the routing of continuous or intermittent, routinely-generated fuel gas streams that contain hydrogen sulfide greater than 230 mg/dscfm (0.10 gr/dscf) to Flaring Devices; and (ii) the characterization of streams that COPC considers to be the result of alleged malfunctions, process upsets, and/or relief valve leakage by taking into consideration the source and frequency of the stream.</p>	12/31/2007	Flares	Complete. The Compliance Plan for LARC/LARW was submitted to EPA on 12/21/07 and the document number is E070609.
142	<p>Summary: Certify compliance and accept NSPS applicability for at least one flare (submit permit application within 90 days)</p> <p>In each Refinery's Compliance Plan for Flaring Devices, COPC will:</p> <p>(a) Certify compliance with one of the four compliance methods set forth in Paragraph 139 and accept NSPS applicability for at least one Flaring Device per Refinery where such Refinery has three or more Flaring Devices;</p> <p>(b) Identify the Paragraph 139 compliance method used for each Flaring Device that COPC identifies under Subparagraph 142(a);</p> <p>(c) Describe the activities that COPC has taken or anticipates taking, together with a schedule, to meet the objectives of Paragraph 141 at each Refinery; and</p> <p>(d) Describe the anticipated compliance method and schedule that COPC will undertake for the remaining Flaring Devices identified in Appendix A.</p>	12/31/2007	Flares	A certification of compliance and acceptance of NSPS applicability for the LPG flare at the Wilmington refinery was submitted to EPA on 12/19/07. The document number is E070588.
142 257	<p>Summary: Submit permit application. (Depending on compliance option, may incorporate RCA requirement into the permit)</p>	12/31/2007 + 90 days	Flares	A permit application for the LPG Flare requesting NSPS J applicability was submitted to the local permitting authority (ie, SCAQMD) on 12/18/07. The document number is E070590. The facility permit has been updated to include NSPS J applicability (permit condition H23.27).
143	<p>Summary: Certify compliance and accept NSPS applicability for all flares (submit permit applications within 90 days)</p> <p>By no later than December 31, 2011, COPC will certify compliance to EPA and the Applicable Co-Plaintiff with one of the four compliance methods in Paragraph 139 and will accept NSPS applicability for all of the Flaring Devices in Appendix A.</p>	12/31/2011	Flares	Future date. Not applicable at this time.

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**ConocoPhillips Consent Decree Semiannual Report**  
**Los Angeles Refinery - Carson Plant Report for the Period January 1, 2008 to June 30, 2008**

Paragraph	Task Description (1)	Due Date	Section	Status / Comments
143 257	Summary: Submit permit application – NSPS applicability for all flares (depending on compliance option, may include RCA requirement permits)	12/31/2011 + 90 days	Flares	Future date. Not applicable at this time.
144	Summary: Conduct flare performance test  Performance Tests. By no later than ninety (90) days after bringing a Flaring Device into compliance by using one or more of the methods in Paragraph 139, COPC will conduct a flare performance test pursuant to 40 C.F.R. §§ 60.8 and 60.18, or an EPA-approved equivalent method. In lieu of conducting the velocity test required in 40 C.F.R. § 60.18, COPC may submit velocity calculations that demonstrate that the Flaring Device meets the performance specification required by 40 C.F.R. § 60.18.	90 days after flare compliance	Flares	The performance test for the LPG Flare was conducted by Almega Environmental on 2/11/08. In accordance with 40 CFR Section 60.8(d), written notification of the performance test was provided to EPA at least 30 days prior to the test (reference, Document Number E080038). As required by 40 CFR Section 60.8(a), a written report containing the results of the performance test was provided to EPA on 3/24/08 (reference, Document Number E080144). The performance test was conducted in accordance with 40 CFR Section 60.8 and the results indicated compliance with 40 CFR Section 60.18.
146	Summary: Maintain good air pollution control practices for flares  Good Air Pollution Control Practices. On and after the Date of Entry of this Decree, COPC, at all times, including during periods of startup, shutdown, and or Malfunction, will, to the extent practicable, maintain and operate the Flaring Devices in Appendix A, and associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions pursuant to 40 C.F.R. § 60.11(d).	12/5/2005	Flares	As of 12/5/05, good air pollution control practices for flares have been implemented at LARC.
152	Summary: Begin Performing Root Cause Analysis after an Acid Gas, Tail Gas, or Hydrocarbon Incident (submit permit application within 90 days)  Future Acid Gas Flaring and Tail Gas Incidents: General. COPC agrees to implement a program to investigate the cause of future Acid Gas Flaring and Tail Gas Incidents, to take reasonable steps to correct the conditions that cause or contribute to such Acid Gas Flaring and Tail Gas Incidents, and to minimize Acid Gas Flaring and Tail Gas Incidents. COPC will follow the procedures in this Section V.L to evaluate whether future Acid Gas Flaring and Tail Gas Incidents occurring after the Date of Entry of this Decree are due to Malfunctions or are subject to stipulated penalties. The procedures set forth in Section V.L require a Root Cause Analysis ("RCA") and corrective action for all types of Acid Gas Flaring and Tail Gas Incidents. The procedures require stipulated penalties for Acid Gas Flaring and Tail Gas Incidents if the Root Causes are not due to Malfunctions.	12/5/2005	Flares	A program was implemented at LAR by 12/5/05. There was one Acid Gas Flaring Incident and four Hydrocarbon Flaring Incidents during this reporting period. Additional information regarding these incidents is included in Section 2.2 Part J of the main report.
167	Summary: Submit single RCA for routine Hydrocarbon Flaring  For Hydrocarbon Flaring Incidents occurring after the Date of Entry, COPC will follow the same investigative, reporting, and corrective action procedures as those outlined in Paragraphs 153 - 157 for Acid Gas Flaring and Tail Gas Incidents. However: (a) Hydrocarbon Flaring Incidents will be reported in a Covered Refinery's quarterly/semi-annual reports due under Section IX rather than on an incident-by-incident basis;  (b) For each of the Flaring Devices identified in Appendix A, COPC may prepare and submit a single RCA for one or more Root Causes found by that analysis to routinely recur. COPC will inform EPA and the Applicable Co-Plaintiff that it is electing to report only once on the Root Cause(s). Unless EPA or the Applicable Co-Plaintiff objects within thirty (30) days of receipt of the RCA, such election will be effective; (c) For the six (6) month period after the installation of a flare gas recovery system (that is, during the time in which the flare gas recovery system is being commissioned), COPC will not be required to undertake Hydrocarbon Flaring Incident investigations if the root cause of the incident is the flare gas recovery system;  (d) In lieu of analyzing possible corrective actions under Paragraph 153 and taking interim and/or long-term corrective action under Paragraph 157; (e) To the extent that a Hydrocarbon Flaring Incident at a Covered Refinery has as its Root Cause the bypass of a flare gas recovery system.	Entry (12/5/05) plus 45 days	Flares	A generic RCA was not submitted because the refinery does not perform routine flaring that meets the Hydrocarbon Flaring definition.

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
172(d)	<p>Summary: Comply with 6 BQ compliance option at Carson</p> <p>(d) By no later than January 31, 2005, COPC's LAR Carson Plant will comply with the 6 BQ compliance option;</p>	1/31/2005	BWON	The facility is following the 6 BQ compliance option and has completed the review and verification.
175	<p>Summary: Review and verify TABs at Bayway, Borger, Ferndale, Carson, Rodeo, Santa Maria</p> <p>One-Time Review and Verification of Each Covered Refinery's TAB: Phase One of the Review and Verification Process. By no later than September 30, 2005, for the Bayway, Borger, Ferndale, LAR Carson, Rodeo and Santa Maria Refineries, COPC will complete a review and verification of each Covered Refinery's TAB and each Covered Refinery's compliance with the applicable compliance option. For each Covered Refinery, COPC's Phase One review and verification process will include, but not be limited to:</p> <p>(a) an identification of each waste stream that is required to be included in the Covered Refinery's TAB (e.g., slop oil, tank water draws, spent caustic, desalter rag layer dumps, desalter vessel process sampling points, other sample wastes, maintenance wastes, and turnaround wastes (that meet the definition of waste under Subpart FF));</p> <p>(b) a review and identification of the calculations and/or measurements used to determine the flows of each waste stream for the purpose of ensuring the accuracy of the annual waste quantity for each waste stream;</p> <p>(c) an identification of the benzene concentration in each waste stream, including sampling for benzene concentration at no less than 10 waste streams per Covered Refinery consistent with the requirements of 40 C.F.R. § 61.355(c)(1) and (3); provided however, that previous analytical data or documented knowledge of waste streams may be used in accordance with 40 C.F.R. § 61.355(c)(2), for streams not sampled; and</p> <p>(d) an identification of whether or not the stream is controlled consistent with the requirements of Subpart FF.</p>	9/30/2005	BWON	Complete. The one-time review and verification of LARC's TAB was completed by Trihydro Corporation prior to 9/30/05.
176	<p>Summary: Submit BWON Compliance Review and Verification Report for Bayway, Borger, Ferndale, Carson, Rodeo, Santa Maria</p> <p>By no later than two (2) months after the dates set forth in Paragraph 175, COPC will submit to EPA and the Applicable Co-Plaintiff a Benzene Waste Operations NESHAP Compliance Review and Verification report ("BWON Compliance Review and Verification Report") for each Covered Refinery that sets forth the results of Phase One, including but not limited to the items identified in (a) through (d) of Paragraph 175.</p>	11/30/2005	BWON	Complete. BWON Compliance Review and Verification Report submitted to EPA on 11/29/05. The document number is E050466.
177	<p>Summary: If required by EPA, sample and submit results of additional 20 waste streams (Phase 2)</p> <p>One-Time Review and Verification of Each Covered Refinery's TAB: Phase Two of the Review and Verification Process. Based on EPA's review of the BWON Compliance Review and Verification Reports, by no later than ninety (90) days after receipt of COPC's submission of the report required by Paragraph 176, EPA may select up to twenty (20) additional waste streams at each Covered Refinery for sampling for benzene concentration. COPC will conduct the required sampling and submit the results to EPA within sixty (60) days of receipt of EPA's request. COPC will use the results of this additional sampling to reevaluate the TAB and the uncontrolled benzene quantity and to amend the BWON Compliance Review and Verification Report, as needed. To the extent that EPA requires COPC to sample a waste stream as part of the Phase Two review that COPC chose to sample as part of the Phase One review, COPC may average the results of the two sampling events. COPC will submit an amended BWON Compliance Review and Verification Report within one-hundred twenty (120) days following the date of the completion of the required Phase Two sampling, if Phase Two sampling is required by EPA. This amended BWON Compliance Review and Verification Report will supercede and replace the originally-submitted BWON Compliance Review and Verification Report. If Phase Two sampling is not required by EPA, the originally-submitted BWON Compliance Review and Verification Report will constitute the final report.</p>	60 days after EPA request	BWON	No Phase 2 sampling was requested.

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
177	<p>Summary: Submit amended BWON Compliance Review and Verification Report after Phase 2 sampling</p> <p>One-Time Review and Verification of Each Covered Refinery's TAB: Phase Two of the Review and Verification Process. Based on EPA's review of the BWON Compliance Review and Verification Reports, by no later than ninety (90) days after receipt of COPC's submission of the report required by Paragraph 176, EPA may select up to twenty (20) additional waste streams at each Covered Refinery for sampling for benzene concentration. COPC will conduct the required sampling and submit the results to EPA within sixty (60) days of receipt of EPA's request. COPC will use the results of this additional sampling to reevaluate the TAB and the uncontrolled benzene quantity and to amend the BWON Compliance Review and Verification Report, as needed. To the extent that EPA requires COPC to sample a waste stream as part of the Phase Two review that COPC chose to sample as part of the Phase One review, COPC may average the results of the two sampling events. COPC will submit an amended BWON Compliance Review and Verification Report within one-hundred twenty (120) days following the date of the completion of the required Phase Two sampling, if Phase Two sampling is required by EPA. This amended BWON Compliance Review and Verification Report will Report. If Phase Two sampling is not required by EPA, the originally-submitted BWON Compliance Review and Verification Report will constitute the final report.</p>	120 days after sampling	BWON	Not required.
178	<p>Summary: Submit amended TAB report, if necessary</p> <p>Amended TAB Reports. If the results of the BWON Compliance Review and Verification Report indicate that a Covered Refinery's most recently-filed TAB report does not satisfy the requirements of Subpart FF, COPC will submit, by no later than one-hundred twenty (120) days after completion of the BWON Compliance Review and Verification Report, an amended TAB report to the applicable state agency. COPC's BWON Compliance Review and Verification Report will be deemed an amended TAB report for purposes of Subpart FF reporting to EPA.</p>	120 days after reporting	BWON	Complete. Amended TAB report submitted to EPA on 3/28/06. The document number is E060115.
179	<p>Summary: Submit new BWON plan to correct non-compliance, if necessary</p> <p>Implementation of Actions Necessary to Correct Non-Compliance: Non-Compliance with the 2 or 6 Mg Options. If the results of the BWON Compliance Review and Verification Report indicate that COPC is not in compliance with the 2 Mg compliance option at the Bayway, Ferndale, or Trainer Refineries or the 6 BQ compliance option at the Alliance, Borger, LAR Carson, LAR Wilmington, Sweeny or Wood River Refineries, then, for each such Refinery not in compliance, COPC will submit to EPA and the Applicable Co-Plaintiff, by no later than one-hundred twenty (120) days after completion of the BWON Compliance Review and Verification Report, a plan that identifies with specificity the compliance strategy and schedule that COPC will implement to ensure that subject Covered Refinery complies with the applicable compliance option as soon as practicable.</p>	120 days after BWON review	BWON	Complete. Based on information contained in the BWON Compliance Review and Verification Report, a Compliance Plan that describes planned and implemented corrective actions was submitted to EPA on 3/28/06. The document number is E060114.
182	<p>Summary: Submit BWON certification of compliance</p> <p>Implementation of Actions Necessary to Correct Non-Compliance: Certification of Compliance. By no later than thirty (30) days after completion of the implementation of all actions, if any, required pursuant to Paragraphs 179 and 180 to come into compliance with the applicable compliance option, COPC will submit its certification and a report to EPA and the Applicable Co-Plaintiff that, as to the subject Refinery, the Refinery complies with the Benzene Waste Operations NESHAP.</p>	30 days after compliance	BWON	Complete. LARW has notified EPA that all action items listed in the Corrective Action Plan required by Paragraph 179 have been implemented. The letter was mailed to EPA on 6/20/08 (Document Number E080250), and a copy is included in Attachment 2.
184	<p>Summary: Replace single and dual canister with primary and secondary canisters and operate in series</p> <p>Installation of Primary and Secondary Canisters Operated in Series. By no later than September 30, 2005, COPC will replace all single carbon canisters or dual canister systems in parallel with primary and secondary carbon canisters and operate them in series.</p>	9/30/2005	BWON	Not required. There were not any carbon canisters in BWON service during this reporting period.

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185	<p>Summary: Submit report certifying canister installation</p> <p>Report Certifying Installation. By no later than October 31, 2005, COPC will submit a report to EPA and the Applicable Co-Plaintiff certifying the completion of the installation. The report will include a list of all locations within each Refinery where secondary carbon canisters were installed, the installation date of each secondary canister, the date that each secondary canister was put into operation, whether COPC is monitoring for breakthrough for VOCs or benzene, and the concentration of the monitored parameter that each Refinery uses as its definition of "breakthrough." COPC must provide written notification to EPA at least thirty (30) days prior to changing either the parameter that it is monitoring for breakthrough or the concentration that it defines as "breakthrough."</p>	10/31/2005	BWON	See Central Report
186	<p>Summary: Do not use single canisters in new units/installations</p> <p>Prohibition of Use of Single Canisters. Except as expressly provided in Paragraph 191, from the Date of Lodging of the Consent Decree through termination, COPC will not use single carbon canisters for any new units or installations that require vapor control pursuant to the Benzene Waste Operations NESHAP at any of its Refineries.</p>	1/27/2005	BWON	There were not any new units using carbon canisters placed into BWON service during this reporting period.
187	<p>Summary: Begin monitoring for breakthrough in dual canister systems at 50 ppm VOC or 1 ppm Benzene</p> <p>Definition of "Breakthrough" in Dual Canister Systems. For dual carbon canister systems in series, "breakthrough" between the primary and secondary canister is defined as any reading equal to or greater than either 50 ppm volatile organic compounds ("VOC") or 1 ppm benzene (depending upon the parameter that COPC decides to monitor). At its option, COPC may utilize a concentration for "breakthrough" at any of its Refineries that is lower than 50 ppm VOC or 1 ppm benzene. At any time, COPC may conduct a study of the effectiveness of the VOC and benzene concentration limits set forth in this Paragraph as these limits are applied at a particular Refinery. This study will last no less than two (2) years and must be performed in accordance with the guidelines established in Appendix G. COPC will submit a schedule and statement of work to EPA and the Applicable Co-Plaintiff at least ninety (90) days prior to beginning such work. COPC will submit a report to EPA and the Applicable Co-Plaintiff summarizing the results of the study within ninety (90) days of completion for the particular Refinery studied, based upon the results of that study and any other relevant information.</p>	9/30/2005	BWON	Potential future requirement.
187	<p>Summary: If benzene and VOC effectiveness study is performed, submit schedule prior to beginning the study</p> <p>Definition of "Breakthrough" in Dual Canister Systems. For dual carbon canister systems in series, "breakthrough" between the primary and secondary canister is defined as any reading equal to or greater than either 50 ppm volatile organic compounds ("VOC") or 1 ppm benzene (depending upon the parameter that COPC decides to monitor). At its option, COPC may utilize a concentration for "breakthrough" at any of its Refineries that is lower than 50 ppm VOC or 1 ppm benzene. At any time, COPC may conduct a study of the effectiveness of the VOC and benzene concentration limits set forth in this Paragraph as these limits are applied at a particular Refinery. This study will last no less than two (2) years and must be performed in accordance with the guidelines established in Appendix G. COPC will submit a schedule and statement of work to EPA and the Applicable Co-Plaintiff at least ninety (90) days prior to beginning such work. COPC will submit a report to EPA and the Applicable Co-Plaintiff summarizing the results of the study within ninety (90) days of completion for the particular Refinery studied, based upon the results of that study and any other relevant information.</p>	90 days prior to study	BWON	Potential future requirement.

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
187	<p>Summary: Submit results of benzene and VOC effectiveness study, if performed</p> <p>Definition of "Breakthrough" in Dual Canister Systems. For dual carbon canister systems in series, "breakthrough" between the primary and secondary canister is defined as any reading equal to or greater than either 50 ppm volatile organic compounds ("VOC") or 1 ppm benzene (depending upon the parameter that COPC decides to monitor). At its option, COPC may utilize a concentration for "breakthrough" at any of its Refineries that is lower than 50 ppm VOC or 1 ppm benzene. At any time, COPC may conduct a study of the effectiveness of the VOC and benzene concentration limits set forth in this Paragraph as these limits are applied at a particular Refinery. This study will last no less than two (2) years and must be performed in accordance with the guidelines established in Appendix G. COPC will submit a schedule and statement of work to EPA and the Applicable Co-Plaintiff at least ninety (90) days prior to beginning such work. COPC will submit a report to EPA and the Applicable Co-Plaintiff summarizing the results of the study within ninety (90) days of completion and may request a revision of the limits under this Paragraph, for the particular Refinery studied, based upon the results of that study and any other relevant information.</p>	90 days after completion	BWON	Potential future requirement.
191	<p>Summary: Begin monitoring breakthrough from single carbon canisters</p> <p>Limited Use of Single Canisters. COPC may utilize properly sized single canisters for short-term operations such as with temporary storage tanks or as temporary control devices. For canisters operated as part of a single canister system, breakthrough is defined for purposes of this Decree as any reading of VOC or benzene above background. Beginning no later than March 1, 2005, COPC will monitor for breakthrough from single carbon canisters each business day (Monday through Friday, excluding legal holidays) there is actual flow to the carbon canister.</p>	3/1/2005	BWON	Potential future requirement.
195	<p>Summary: Begin annual review of process/projects for BWON purposes</p> <p>Annual Review. By no later than September 30, 2005, COPC will modify existing management of change procedures or develop a new program to annually review process and project information for each Refinery, including but not limited to construction projects, to ensure that all new benzene waste streams are included in each Refinery's waste stream inventory during the life of the Consent Decree.</p>	9/30/2005	BWON	BWON review added to Environmental Review Worksheet for Management of Change (MOC) procedures prior to 9/30/05. All MOCs have been reviewed to date for BWON.
197	<p>Summary: Audit any new labs</p> <p>After March 31, 2006, COPC will audit any new laboratory to be used for analyses of benzene waste NESHAP samples prior to such use</p>	After 3/31/2006	BWON	See Central Report, laboratories used by the facility were audited per the requirements. New laboratories will be audited as required.
199	<p>Summary: Audit labs every 2 years</p> <p>During the life of this Consent Decree, COPC will conduct subsequent laboratory audits, such that each laboratory is audited every two (2) years.</p>	Every 2 years	BWON	Future Requirement.
201	<p>Summary: Review spills for more than 10 lbs of benzene waste after Date of Entry</p> <p>Benzene Spills. Beginning on the Date of Entry, for each spill at each Covered Refinery, COPC will review such spills to determine if more than 10 pounds of benzene waste was generated in any twenty-hour (24) hour period. COPC will include the benzene generated by such spills in the TAB and in the uncontrolled benzene quantity calculations for each Refinery in accordance with the applicable compliance option as required by Subpart FF.</p>	12/5/2005	BWON	Ongoing review of spills for more than 10 pounds of benzene was initiated prior to 12/5/05. Appropriate data for this year will be included in the 2008 TAB report.
202	<p>Summary: Begin annual training for employees taking benzene waste samples</p> <p>Training. By no later than April 1, 2005, COPC will develop and begin implementation of annual (i.e., once each calendar year) training for all employees asked to draw benzene waste samples at each of the Covered Refineries.</p>	4/1/2005	BWON	Initial training for BWON Coordinators occurred on 3/25/05 (Trihydro Corporation training included Method 25 D training for coordinators). Records of calendar-year 2007 training for employees taking benzene waste samples are maintained with the BWON Coordinator.

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
203	<p>Summary: Complete development of SOPs for BWON equipment</p> <p>Training: All but the Rodeo and Santa Maria Refineries. By no later than June 30, 2005, for all Covered Refineries except Rodeo and Santa Maria, COPC will complete the development of standard operating procedures for all control equipment used to comply with the Benzene Waste Operations NESHAP.</p>	6/30/2005	BWON	Complete. SOPs for BWON equipment were developed or updated prior to 6/30/05. Copies of the SOPs are maintained onsite.
203	<p>Summary: Complete operator training for new SOPs</p> <p>Training: All but the Rodeo and Santa Maria Refineries. By no later than March 31, 2006, COPC will complete an initial training program regarding these procedures for all operators assigned to this equipment. Comparable training will also be provided to any persons who subsequently become operators, prior to their assumption of this duty. Until termination of this Decree, "refresher" training in these procedures will be performed at a minimum on a three (3) year cycle.</p>	3/31/2006	BWON	Operators were trained on SOPs for BWON equipment prior to 3/31/06. Refresher training will be completed by 3/31/09.
206	<p>Summary: Submit schematics for waste/slop/off-spec oil management units for Bayway, Borger, Ferndale, Carson, Rodeo and Santa Maria</p> <p>Waste/Slop/Off-Spec Oil Management: Schematics. By no later than September 30, 2005, for the Bayway, Borger, Ferndale, LAR Carson, Rodeo and Santa Maria Refineries, COPC will submit to EPA and the Applicable Co-Plaintiff schematics for each Refinery that: (a) depict the waste management units (including sewers) that handle, store, and transfer waste, slop, or off-spec oil streams; (b) identify the control status of each waste management unit; and (c) show how such oil is transferred within the Refinery. COPC will include with the schematics a quantification of all uncontrolled waste, slop, or off-spec oil movements at the Refinery. If requested by EPA, COPC will submit to EPA within ninety (90) days of the request, revised schematics regarding the characterization of these waste, slop, off-spec oil streams and the appropriate control standards.</p>	9/30/2005	BWON	Complete. Schematics containing the required information were submitted to EPA on 9/30/05. The document number is E050397.
206	<p>Summary: Submit revised schematics to EPA, if requested</p> <p>Waste/Slop/Off-Spec Oil Management: Schematics. By no later than September 30, 2005, for the Bayway, Borger, Ferndale, LAR Carson, Rodeo and Santa Maria Refineries, and by no later than March 31, 2006, for the Alliance, LAR Wilmington, Sweeny, Trainer, and Wood River Refineries, COPC will submit to EPA and the Applicable Co-Plaintiff schematics for each Refinery that: (a) depict the waste management units (including sewers) that handle, store, and transfer waste, slop, or off-spec oil streams; (b) identify the control status of each waste management unit; and (c) show how such oil is transferred within the Refinery. COPC will include with the schematics a quantification of all uncontrolled waste, slop, or off-spec oil movements at the Refinery. If requested by EPA, COPC will submit to EPA within ninety (90) days of the request, revised schematics regarding the characterization of these waste, slop, off-spec oil streams and the appropriate control standards.</p>	90 days after request	BWON	Potential future requirement.
210	<p>Summary: Submit BWON sampling plan for Bayway, Borger, Ferndale, Carson, Rodeo, Santa Maria</p> <p>Benzene Waste Operations Sampling Plan: Due Dates for Submission. COPC will submit the sampling plans by no later than the following dates for the following Refineries:</p> <p style="margin-left: 40px;">Bayway, Borger, Ferndale                      12/31/05 LAR Carson, Rodeo, Santa Maria</p>	12/31/2005	BWON	Complete. BWON Sampling Plan submitted to EPA on 12/30/05. The document number is E050513.
212	<p>Summary: Benzene Waste Operations Sampling Plans: Timing for Implementation</p> <p>LARC to implement the sampling required under the sampling plan during the first full calendar quarter after the plan is submitted. LARC will continue to implement the sampling plan (i) unless and until EPA disapproves the plan, or (ii) unless and until LARC modifies the plan with EPA approval, under paragraph 213.</p>	1st calendar quarter after submitting Sampling Plan	BWON	The quarterly sampling program at LARC began during first quarter 2006. The quarterly sampling reports for this reporting period (dated 4/22/08 and 7/18/08) are included in Attachment 2.

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
213(c)	<p>Summary: Submit request for approval for a new/revised sampling plan, if desired by COPC</p> <p>(c) Requests for Modifications. After two (2) years of implementing a sampling plan, COPC may submit a request to EPA for approval, with a copy to the Applicable Co-Plaintiff, to revise a Covered Refinery's sampling plan, including sampling frequency. EPA will not unreasonably withhold its consent. COPC will not implement any proposed revisions under this Subparagraph until EPA provides its approval.</p>	2 yrs after implementing plan	BWON	Future date. Not applicable at this time.
217	<p>Summary: Submit Compliance Assurance Plan, if COPC meets conditions</p> <p>Compliance Assurance Plan. If COPC meets one or more conditions in Paragraph 215 for implementing corrective measures, then by no later than sixty (60) days after the end of the calendar quarter in which one or more of the conditions were met, COPC will submit a compliance assurance plan to EPA for approval, with a copy to the Applicable Co-Plaintiff. In that compliance assurance plan, COPC will identify the cause(s) of the potentially-elevated benzene quantities, all corrective actions that COPC has taken or plans to take to ensure that the cause(s) will not recur, and the schedule of actions that COPC will take to ensure that the subject refinery complies with the Benzene Waste Operations NESHAP for the calendar year. COPC will implement the plan unless and until EPA disapproves.</p>	60 days after quarter conditions were met	BWON	Sampling in accordance with the previously submitted Sampling Plan is being implemented and as of July 2008 corrective measures have not been required.
218	<p>Summary: Submit results of third-party TAB study and plans to remedy deficiencies, if necessary</p> <p>Third-Party Assistance. If, in two consecutive quarters, at least one of the conditions in Paragraph 215 exists at a particular Refinery, then COPC will retain a third-party contractor during the third calendar quarter to undertake a TAB study and compliance review at that Refinery. By no later than ninety (90) days after COPC receives the results of the third-party TAB study and compliance review, COPC will submit the results to EPA and the Applicable Co-Plaintiff and submit a plan and schedule for remedying any deficiencies identified in the third-party study and compliance review. COPC will implement the plan unless and until EPA disapproves.</p>	90 days after results received	BWON	As of July 2008, a third-party TAB study and compliance review has not been required.
219	<p>Summary: Conduct various miscellaneous BWON measures (i.e. monthly visual inspections of water traps, identify and mark drains, weekly inspection of vents, quarterly monitoring of oil-water separators in benzene service, manage groundwater remediation wastes)</p> <p>Miscellaneous Measures. The provisions of this Paragraph will apply to all Covered Refineries except the Rodeo and Santa Maria Refineries from September 30, 2005, through termination, from such time as a compliance strategy under Paragraph 180 is implemented until termination of the Consent Decree:</p> <p>(a) Conduct monthly visual inspections of all Subpart FF water traps within the Refinery's individual drain systems;</p> <p>(b) Identify and mark all area drains that are segregated storm water drains;</p> <p>(c) On a weekly basis, visually inspect all Subpart FF conservation vents on process sewers for detectable leaks; reset any vents where leaks are detected; and record the results of the inspections. After two (2) years of weekly inspections, and based upon an evaluation of the recorded results, COPC may submit a request to the Applicable EPA Region to modify the frequency of the inspections. EPA will not unreasonably withhold its consent. Nothing in this Paragraph 219(c) will require COPC to monitor conservation vents on fixed roof tanks. Alternatively, for conservation vents with indicators that identify whether flow has occurred, COPC may elect to visually inspect such indicators on a monthly basis and, if flow is then detected, COPC will then visually inspect that indicator on a weekly basis for four (4) weeks. If flow is detected during any two (2) of those four (4) weeks, COPC will install a carbon canister on that vent until appropriate corrective action(s) can be implemented to prevent such flow;</p> <p>(d) Conduct quarterly monitoring of the controlled oil-water separators in benzene service in accordance with the "no detectable emissions" provision in 40 C.F.R. § 61.347; and</p> <p>(e) Manage all groundwater remediation wastes that are covered by Subpart FF at each of its Refineries in appropriate waste management units under and as required by the Benzene Waste Operations NESHAP.</p>	9/30/2005	BWON	Compliance status is as follows: (a) The Carson refinery does not have any Subpart FF water traps, (b) all segregated stormwater drains have been identified and marked, (c) the Carson refinery does not have any Subpart FF conservation vents, (d) the Carson refinery does not have any controlled oil-water separators in benzene service, and (e) all Subpart FF groundwater remediation waste is managed in accordance with the Benzene NESHAP. This was validated during the 3rd party TAB validation.

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
225	<p>Summary: Develop written LDAR program</p> <p>Written Refinery-Wide LDAR Program. By no later than September 30, 2005, COPC will develop and maintain, for each of the Covered Refineries, a written LDAR program for compliance with all applicable federal, state, regional, and local LDAR regulations. This written program may be specific to each Refinery and will include all process units subject to federal, state, regional, and/or local LDAR regulations ("Refinery-Wide program"). Until termination of this Decree, COPC will implement the program on a Refinery-wide basis and COPC will update each such program as may be necessary to ensure continuing compliance. Each Refinery's program will include at a minimum:</p> <p>(a) An overall, Refinery leak rate goal that will be a target for achievement on a process-unit-by-process-unit basis;</p> <p>(b) An identification of all equipment in light liquid and/or in gas/vapor service that has the potential to leak VOCs, HAPs, VHAPs, and benzene within process units that are owned and maintained by the Refinery;</p> <p>(c) Procedures for identifying leaking equipment within process units that are owned and maintained by the Refinery;</p> <p>(d) Procedures for repairing and keeping track of leaking equipment;</p> <p>(e) A process for evaluating new and replacement equipment to promote consideration and installation of equipment that will minimize leaks and/or eliminate chronic leakers;</p> <p>(f) A description of the Refinery's LDAR monitoring organization and a designation of the person or position that is responsible for LDAR management and that has the authority to implement LDAR improvements at the Refinery; and</p> <p>(g) Procedures (e.g., a Management of Change program) to ensure that components subject to LDAR requirements added to each Refinery during maintenance and construction are integrated into the LDAR program.</p>	9/30/2005	LDAR	A written LDAR Plan for compliance with the Consent Decree was finalized by 9/30/05. A copy of the plan is maintained in the LDAR Coordinator's office.
226	<p>Summary: Begin implementation of LDAR training program</p> <p>Training. By no later than December 31, 2005, COPC will commence implementation of the following training programs at each Covered Refinery:</p> <p>(a) For personnel newly-assigned to LDAR responsibilities, COPC will require LDAR training prior to each employee beginning such work;</p> <p>(b) For all COPC employees specifically assigned LDAR responsibilities, such as monitoring technicians, database users with permissions or rights to modify LDAR data, QA/QC personnel and the LDAR Coordinator, COPC will provide and require annual LDAR training. The first such training will be completed by not later than March 31, 2006;</p> <p>(c) For all other COPC operations and maintenance personnel, such as operators and mechanics performing valve packing and designated unit supervisors reviewing for delay of repair work, COPC will provide and require completion of an initial training program that includes instruction on aspects of LDAR that are relevant to the person's duties. The first such training will be completed by not later than September 30, 2006. Refresher training in LDAR for these personnel will be performed at a minimum on a three (3) year cycle; and</p> <p>(d) If contract employees are performing LDAR work, COPC's contractor will make its training info and records available to COPC.</p>	12/31/2005	LDAR	LDAR training implemented at LARC by 12/31/05. Training records for LARC persons performing LDAR are maintained electronically. Training records for contractors performing LDAR work are maintained onsite in the LDAR contractor's office.

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
226(b)	<p>Summary: Complete annual LDAR training for specific employees</p> <p>(b) For all COPC employees specifically assigned LDAR responsibilities, such as monitoring technicians, database users with permissions or rights to modify LDAR data, QA/QC personnel and the LDAR Coordinator, COPC will provide and require annual LDAR training. The first such training will be completed by not later than March 31, 2006;</p>	3/31/2006 and yearly by 3/31 thereafter	LDAR	Implementation of the LDAR training program occurred prior to 3/31/06. Annual LDAR coordinator training was conducted from 6/5/07 through 6/8/07.
226(c)	<p>Summary: Complete initial LDAR training for certain employees (operators, mechanics, etc.) and provide refresher training every three years thereafter.</p> <p>(c) For all other COPC operations and maintenance personnel, such as operators and mechanics performing valve packing and designated unit supervisors reviewing for delay of repair work, COPC will provide and require completion of an initial training program that includes instruction on aspects of LDAR that are relevant to the person's duties. The first such training will be completed by not later than September 30, 2006. Refresher training in LDAR for these personnel will be performed at a minimum on a three (3) year cycle;</p>	9/30/2006 and every three years thereafter	LDAR	Computer based training that included an LDAR assessment exam was completed by 9/30/06 for certain LARC employees with specifically assigned LDAR responsibilities. Refresher training will be conducted by 9/30/09.
229	<p>Summary: Complete third-party LDAR audit for Borger, Carson, Santa Maria, Trainer, Wood River</p> <p>Third-Party Audits. COPC will retain a contractor(s) to perform a third-party audit of the Refinery's LDAR program at least once every four (4) years. The first third-party audit and report for the Borger, LAR Carson, Santa Maria, Trainer, and Wood River Refineries will be completed by no later than December 31, 2006.</p>	12/31/2006 and every three years thereafter	LDAR	The first third-party audit report was submitted to EPA on 12/28/06. The document number is E060565. An audit summary was included in the January 2007 semiannual progress report.
230	<p>Summary: Complete Internal LDAR audits for all Covered Refineries by no later than two years after the third party audits</p> <p>Internal Audits. COPC will conduct internal audits of each Refinery's LDAR program by sending personnel familiar with the LDAR program and its requirements from one or more of COPC's other Refineries or locations to audit another COPC Refinery. COPC will complete an internal LDAR audit by no later than two (2) years from the date of the completion of the third-party audits required in Paragraphs 228 and 229. COPC will perform an internal audit of the each Refinery's LDAR program at least once every four (4) years. COPC may elect to retain third-parties to undertake the internal audit, provided that an LDAR audit at each Refinery occurs every two (2) years.</p>	No Later than two years after third party audits	LDAR	Future date. Not applicable at this time.
232	<p>Summary: Submit letter certifying completion of LDAR corrective actions, if necessary</p> <p>Implementation of Actions Necessary to Correct Non-Compliance. If the results of any of the audits conducted pursuant to Paragraphs 228 - 230 identify any areas of non-compliance, COPC will implement, as soon as practicable, all steps necessary to correct the area(s) of non-compliance and to prevent, to the extent practicable, a recurrence of the cause of such non-compliance. By no later than ninety (90) days after the completion of any audit report identifying any areas of non-compliance, COPC will submit a letter to EPA and the Applicable Co-Plaintiff certifying the completion of the necessary corrective actions. To the extent that one or more items of corrective action cannot be completed within ninety (90) days, the letter will identify the schedule for the completion of the actions. Until two (2) years after termination of the Consent Decree, COPC will retain the audit reports generated pursuant to Paragraphs 228 - 230 and will maintain a written record of the corrective actions that COPC takes in response to deficiencies identified in any audits.</p>	No Later than 90 days after any audit report	LDAR	Based on the results of the first third-party audit report, a corrective action report was deemed necessary and was submitted to EPA on 3/27/07 (Doc # E070152).
234	<p>Summary: Utilize 500 ppm leak detection for valves at Carson, Wilmington, Rodeo, Sweeny (qtrly monitoring)</p> <p>Leak Definition for Valves. By no later than March 1, 2005, for the LAR Carson, LAR Wilmington, Rodeo, and Sweeny Refineries, COPC will utilize an internal leak definition of no greater than 500 ppm VOCs for each Refinery's valves in light liquid and/or gas/vapor service, excluding pressure relief devices.</p>	3/1/2005	LDAR	Local rule has refinery monitoring against a 500 ppm leak definition for valves in light liquid and/or gas/vapor service.

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Paragraph	Task Description (1)	Due Date	Section	Status / Comments
235	<p>Summary: Utilize 2000 ppm leak detection for pumps at Alliance, Bayway, Carson, Wilmington, Rodeo, Sweeny (monthly monitoring)</p> <p>Leak Definition for Pumps. By no later than the following dates for the following Refineries, COPC will utilize an internal leak definition of no greater than 2000 ppm for each Refinery's pumps in light liquid and/or gas/vapor service</p>	3/1/2005	LDAR	Local rule has refinery monitoring against a lower leak definition for pumps in light liquid and/or gas/vapor service.
238	<p>Summary: Begin making initial attempt at repair of valves leaking greater than 200 ppm</p> <p>Initial Attempt at Repair of Valves. By no later than March 31, 2005, COPC will make an "initial attempt" to repair any valve that has a reading greater than 200 ppm of VOCs, excluding control valves and components that LDAR monitoring personnel are not authorized to repair. COPC or its designated contractor will make this "initial attempt" at repair and will re-monitor the leak within one (1) day of identification. If the re-monitored leak reading is greater than the applicable leak definition, COPC may delay further repairs up to five (5) days after initial identification in order to assess the persistence of the leak (re-monitoring again). Unless the re-monitored leak rate is greater than the applicable leak definition, no further action will be necessary. If COPC can demonstrate with sufficient, statistically significant monitoring data over a period of at least two (2) years that "initial attempts" to repair at 200 ppm worsen or do not improve refinery leak rates, COPC may request EPA to reconsider or amend this requirement.</p>	3/31/2005	LDAR	LDAR monitoring personnel are not authorized to perform repairs.
239	<p>Summary: Monitor pumps on monthly basis when lower internal leak definition becomes applicable under Paragraph 235</p> <p>LDAR Monitoring Frequency: Pumps. When the lower internal leak definition for pumps in light liquid and/or gas/vapor service becomes applicable under Paragraph 235 and unless more frequent monitoring is required by applicable federal, state, regional and/or local requirements, COPC will monitor pumps at the internal leak definition on a monthly basis.</p>	Monthly	LDAR	Monthly inspections have been performed since 3/1/05 and records are maintained onsite (electronic format). A summary of 2007 monitoring results is included in Attachment 3 of the main report.
240	<p>Summary: Monitor valves on quarterly basis when lower internal leak definition becomes applicable under Paragraph 234</p> <p>LDAR Monitoring Frequency: Valves. When the lower internal leak definition for valves becomes applicable under Paragraph 234 and unless more frequent monitoring is required by applicable federal, state, regional and/or local requirements, COPC will monitor valves in light liquid and/or gas/vapor service at the internal leak definition on a quarterly basis (other than difficult to monitor or unsafe to monitor valves). No monitoring skip periods are permitted.</p>	Quarterly	LDAR	At least quarterly inspections have been performed since 3/1/05 and records are maintained onsite (electronic format). A summary of 2007 monitoring results is included in Attachment 3 of the main report.
242	<p>Summary: Update LDAR electronic database with time, date, operator, instrument</p> <p>Electronic Storing and Reporting of LDAR Data. COPC has and will continue to maintain an electronic database for storing and reporting LDAR data at all of the Covered Refineries. By no later than February 1, 2005, the electronic database will include data identifying the date and time of the monitored event, and the operator and instrument used in the monitored event.</p>	2/1/2005	LDAR	Complete. As of 2/1/05, the LDAR electronic database was updated to include the required information.
243	<p>Summary: Use data loggers and/or electronic data devices for LDAR monitoring (everyone except Trainer and Wood River)</p> <p>Electronic Data Collection During LDAR Monitoring and Transfer Thereafter. By no later than January 31, 2005, COPC will use data loggers and/or electronic data collection devices during all Method 21 LDAR monitoring. COPC, or its designated contractor, will use its/their best efforts to transfer, by the end of the next business day electronic data from electronic data logging devices to the electronic database of Paragraph 242. For all Method 21 monitoring in which an electronic data collection device is used, the collected monitoring data will include a time and date stamp and identify the operator/monitoring technician and the monitoring instrument used. COPC may use paper logs where necessary or more feasible for Method 21 monitoring (e.g., small rounds, re-monitoring, or when data loggers are not available or broken), and will record, at a minimum, the identity of the technician, the date, the technicians' daily monitoring starting and ending times, and an identification of the monitoring equipment. COPC will use its best efforts to transfer any manually recorded mo</p>	1/31/2005	LDAR	Complete. Electronic data collection and logging equipment in use prior to 1/31/05.

(1) This is a paraphrase of the CD paragraph for reference purposes only. Please refer to the CD for the actual language of the requirements.

**ConocoPhillips Consent Decree Semiannual Report**  
**Los Angeles Refinery - Carson Plant Report for the Period January 1, 2008 to June 30, 2008**

Paragraph	Task Description (1)	Due Date	Section	Status / Comments
244	<p>Summary: Begin QA/QC of LDAR data</p> <p>QA/QC of LDAR Data. By no later than March 31, 2005, COPC, or a third party contractor retained by COPC, will develop and begin implementing procedures for quality assurance/quality control ("QA/QC") reviews of all data generated by LDAR monitoring technicians. COPC periodically will ensure that monitoring data provided by its technicians is reviewed daily for QA/QC by the technicians. At least once per calendar quarter, COPC will perform a QA/QC review of COPC's and any contractor's monitoring data which will include, but not be limited to: number of components monitored per technician, time between monitoring events, and abnormal data patterns.</p>	3/31/2005	LDAR	Procedures are in place to ensure that monitoring data provided by the LDAR technicians is reviewed daily for QA/QC by the technicians. Procedures also require the COPC LDAR Coordinator to perform at least a quarterly review of LDAR data. These practices were in place prior to 3/31/05 and are being implemented at LARC.
246	<p>Summary: Conduct calibration drift assessments of LDAR monitoring equipment</p> <p>Calibration Drift Assessment. By no later than February 1, 2005, COPC will conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift, at a minimum. COPC will conduct the calibration drift assessment using approximately 50 ppm calibration gas. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, COPC will re-monitor all valves that were monitored since the last calibration that had a reading greater than 100 ppm and will re-monitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm. COPC will retain its calibration records for two (2) years after performing the calibration.</p>	2/1/2005	LDAR	LDAR technicians conduct calibration drift assessments of the monitoring equipment at the end of each shift. Records are available in the LDAR Coordinator's office.
247	<p>Summary: Begin actions on "delay of repair" (supervisor sign off, continue to monitor, best efforts to isolate pumps)</p> <p>Delay of Repair. By no later than January 1, 2006, COPC will take the following actions for any equipment that it intends and is allowed to place on the "delay of repair" list under applicable regulations:</p> <p>(a) Require electronic or written sign-off by the unit supervisor within 30 days of identifying that a piece of equipment is leaking at a rate greater than the applicable leak definition that such equipment qualifies for delayed repair under applicable regulations,</p> <p>(b) Include equipment that is placed on the "delay of repair" list in COPC's regular LDAR monitoring,</p> <p>(c) Use its best efforts to isolate and repair pumps identified as leaking at the applicable regulatory leak definition, or, when applicable pursuant to Paragraph 235, 2000 ppm or greater.</p>	1/1/2006	LDAR	Per local rule, facility does not have any items on delay of repair list. This applies to all quarters during this reporting period.
248	<p>Summary: Begin actions for "delay of repair" on certain specific valves (drill and tap at two times if necessary)</p> <p>Delay of Repair: Valves Only. In addition to the requirements of Paragraph 247, by no later than January 1, 2006, COPC will take the following actions for leaking valves, other than control valves and pressure relief valves, that COPC is required to repair under applicable regulations:</p> <p>(a) Use the "drill and tap"(or equivalent) repair method, rather than place a valve on the "delay of repair" list, if it is leaking at a rate of 10,000 ppm or greater, unless COPC can demonstrate that there is a safety or major environmental concern by attempting to repair the leak in this manner;</p> <p>(b) Perform a first, and if necessary a second, "drill and tap" (or equivalent) repair method within thirty (30) days after detecting a leak of 10,000 ppm or greater;</p> <p>(c) After two (2) unsuccessful attempts to repair a leaking valve through the "drill and tap" (or equivalent) repair method, COPC may place the leaking valve on its "delay of repair" list.</p>	1/1/2006	LDAR	Per local rule, facility does not have any items on delay of repair list. This applies to all quarters during this reporting period.

(1) This is a paraphrase of the CD paragraph for reference purposes only. Please refer to the CD for the actual language of the requirements.

**ConocoPhillips Consent Decree Semiannual Report**  
**Los Angeles Refinery - Carson Plant Report for the Period January 1, 2008 to June 30, 2008**

Paragraph	Task Description (1)	Due Date	Section	Status / Comments
250	<p>Summary: Address chronic leakers during turnaround (6 months after Date of Entry)</p> <p>Chronic Leakers. A valve will be classified as a "chronic leaker" under this Paragraph if it leaks above 5000 ppm twice in any consecutive four (4) quarters, unless the valve has not leaked in the six (6) consecutive quarters prior to the relevant process unit turnaround. Following the identification of a "chronic leaker" non-control valve, COPC will replace, repack, or perform similarly effective repairs on the chronic leaker during the next process unit turnaround occurring at the later of June 30, 2005, or six (6) months after the Date of Entry of this Decree. After Entry of this Decree, COPC and EPA may agree in writing to modifications of the chronic leaker requirements of this Paragraph 250 and any such modifications will be considered non-material under Paragraph 437.</p>	6/3/2006	LDAR	LARC was planning to repair a valve (LDAR Tag No. 34816-000) classified as a "chronic leaker" during the April-May 2008 turnaround in accordance with Paragraph 250 requirements. However, since the last valve repair prior to the turnaround appears to have been successful, the valve wasn't replaced or repacked during the turnaround. Going into the April-May 2008 turnaround, there were no other valves classified as "chronic leakers" at LARC.
256	<p>Summary: Submit permit applications to appropriate agencies for all limits applicable on Date of Lodging</p> <p>Obtaining Permit Limits for Consent Decree Emission Limits That Are Effective Upon the Date of Lodging. By no later than June 30, 2005, COPC will submit complete applications to the applicable state/local agency to incorporate the emission limits and standards required by the Consent Decree that are effective as of the Date of Lodging of the Consent Decree into federally enforceable minor or major new source review permits or other permits that will ensure that the underlying emission limit or standard survives the termination of this Consent Decree. In light of the permitting program in the State of Louisiana, COPC will submit to LDEQ's consolidated permitting program, under the same time frame as that of the previous sentence, appropriate applications, amendments, and/or supplements to ensure that the emission limits and standards required by this Consent Decree that are effective as of the Date of Lodging survive termination of this Consent Decree. Following submission of the complete permit applications (or, for the Alliance Refinery, following sub</p>	6/30/2005	Permitting	Complete. Permit applications for heaters and boilers requesting inclusion of NSPS J requirements for fuel gas combustion devices were submitted to the local permitting authority (ie, SCAQMD) on 6/30/05.
257	<p>Summary: Submit permit applications for emission limits after Lodging/Entry</p> <p>Obtaining Permit Limits For Consent Decree Emission Limits That Become Effective After the Date of Lodging/Date of Entry. As soon as practicable, but in no event later than ninety days after the effective date or establishment of any emission limits and standards under this Consent Decree, COPC will submit complete applications to the applicable state/local agency to incorporate those emission limits and standards into federally enforceable minor or major new source review permits or other permits that will ensure that the underlying emission limit or standard survives the termination of this Consent Decree. In light of the permitting program in the State of Louisiana, COPC will submit to LDEQ's consolidated permitting program, under the same time frame as that of the previous sentence, appropriate applications, amendments, and/or supplements so as to ensure that the emission limits and standards required by this Consent Decree survive termination of this Consent Decree. Following submission of the complete permit application (or, for the Alliance Refinery, following submission of the appropriate applications, amendments and/or supplements), COPC will cooperate with the applicable state/local agency by promptly submitting to the applicable state/local agency all information that the applicable state/local agency seeks following its receipt of the permit materials. Upon issuance of such permit or in conjunction with such permitting, COPC will file any applications necessary to incorporate the requirements of that permit into the Title V permit of the appropriate COPC Refinery. COPC does not waive its right to appeal more stringent emission limits or standards than those required by this Consent Decree.</p>	90 days after effective date	Permitting	There have not been any permit applications requesting Consent Decree emission limits submitted after 6/30/05.

(1) This is a paraphrase of the CD paragraph for reference purposes only. Please refer to the CD for the actual language of the requirements.

**ATTACHMENT 2**

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**COMPLIANCE PLAN FOR FLARING DEVICES  
CONOCOPHILLIPS, LOS ANGELES REFINERY**



Los Angeles Refinery

1660 West Anaheim Street  
Wilmington, CA 90744  
Phone (310) 952-6000

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

December 21, 2007

Director, Air Enforcement Division  
Office of Civil Enforcement  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Mail Code 2242-A  
Washington, DC 20004

**Compliance Plan for Flaring Devices  
Civil Action No. H-05-0258 in the US District Court for the Southern District of Texas  
ConocoPhillips Los Angeles Refinery**

Dear Director,

The ConocoPhillips Consent Decree (Civil Action No. H-05-258) identifies several requirements for flaring devices including the requirement to certify compliance with one of the four compliance methods set forth in Paragraph 139 and accept NSPS applicability. There are six flares at the Los Angeles Refinery (Carson and Wilmington plants): Carson East, Carson West, Wilmington North, Wilmington South, Wilmington Unicracker, and the Wilmington LPG Flare.

In accordance with Paragraph 142 of the Consent Decree, ConocoPhillips' Los Angeles Refinery has certified compliance for the LPG Flare using the compliance option listed in Paragraph 139(b) in a letter to EPA dated December 19, 2007. Submittal of this letter meets the certification and description requirements of Paragraph 142(a) and (b). Further, this letter demonstrates that the Los Angeles Refinery has fulfilled the requirement that at least one of its six flares certify compliance with one of the Paragraph 139 options and accept NSPS applicability prior to December 31, 2007.

Subsections (c) and (d) of Paragraph 142 of the Consent Decree require the submittal of a description of the activities, compliance method and schedule that ConocoPhillips anticipates implementing so that the remaining flares will comply with one of the four compliance methods in Paragraph 139 and accept NSPS applicability. Please find attached the Compliance Plan for the remaining five flares at the Los Angeles Refinery. As required by Paragraph 142, these flares will be brought into compliance by no later than December 31, 2011.

E070609

If you have any questions regarding this submittal, please do not hesitate to contact Knut J. Beruldsen at (310) 522-8037.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kristin N. Wisdom', with a stylized flourish at the end.

Kristin N. Wisdom  
Director, Environmental Services

Enclosure:

**ConocoPhillips Company**  
**Compliance Plan for Flaring Devices at LAR**  
**December 21, 2007**

Refinery	Name of Flare	Flare Description	Description of High H <sub>2</sub> S Streams vented to the Flare	Paragraph 139 Compliance Method and Schedule
LAR Carson	Carson East	<p>This flare is designed to combust vent gases associated with routine (e.g., pressure reliefs and purges) and non-routine (e.g., start-ups, shutdowns, and malfunctions) operating conditions. Currently, the East and West flares operate independently. The East Flare serves the Crude Unit, Vacuum Flasher, Coker (including coker blowdown), the C3/C4 Unit, and the Utilities area. The flare tip is 30 inches in diameter and has steam injection and air induction tubes to promote combustion. The design capacity is approximately 600,000 pounds/hour. As part of the flare gas recovery and treatment project, the East and West flares will be connected and will no longer operate independently.</p>	<p>Various streams with potentially high H<sub>2</sub>S content are periodically vented to this flare.</p> <p>Currently, a daily grab sample at the flare inlet is obtained and analyzed for total sulfur/H<sub>2</sub>S content in order to monitor compliance with South Coast Air Quality Management District (SCAQMD) Rule 1118 requirements. Rule 1118 also contains an H<sub>2</sub>S limit of 160 ppm (3-hour average) applicable to all flares effective 1/1/09. Although not required by Rule 1118, an H<sub>2</sub>S CEMS upstream of each flare is planned for installation by 12/31/08 in order to monitor compliance with this pending requirement (assuming the CEMS technology is commercially available and reliable for this application).</p>	<p>A flare gas recovery and treatment system meeting Paragraph 139(a) requirements will be installed by 12/31/08.</p> <p>A permit to construct the above system was issued by the SCAQMD on 6/7/07.</p> <p>The projected Paragraph 139 compliance and NSPS applicability date for the Carson East and West flares is no later than 12/31/11.</p>
LAR Carson	Carson West	<p>This flare is designed to combust vent gases associated with routine (e.g., pressure reliefs and purges) and non-routine (e.g., start-ups, shutdowns, and malfunctions) operating conditions. Currently, the East and West flares operate independently. The West Flare serves the Hydrogen Plant, the two Hydrotreating Plants, and the Sulfur Recovery Plant. The flare tip is 24 inches in diameter and has steam injection to promote combustion. The design capacity is approximately 250,000 pounds/hour. As part of the flare gas recovery and treatment project, the East and West flares will be connected and will no longer operate independently.</p>	Same as above.	Same as above.

cc: Director, Air Enforcement Section  
Office of Civil Enforcement  
c/o Matrix New World Engineering Inc.  
120 Eagle Rock Avenue, Suite 207  
East Hanover, NJ 07936

Deborah Jordan, Director  
Air Division  
Mail Code AIR-1  
U.S. EPA Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

Margaret Waldon  
Air Division  
Mail Code AIR-5  
U.S. EPA Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

e-cc: [csullivan@matrixnewworld.com](mailto:csullivan@matrixnewworld.com)  
[foley.patrick@epa.gov](mailto:foley.patrick@epa.gov)

**ConocoPhillips Company  
Compliance Plan for Flaring Devices at LAR  
December 21, 2007**

Refinery	Name of Flares	Flare Description	Description of High H <sub>2</sub> S Streams vented to the Flares	Paragraph 139 Compliance Method and Schedule
LAR Wilmington	Wilmington North, Wilmington South, Unicracker	<p>These three flares are part of an integrated, three-stage refinery-wide flare system. Each flare has a water seal drum that has a variable sealing height. This allows the three flares to be operated as a single system with a staged design instead of individually. Routing of blowdown gases is controlled by the relative heights of the liquid seals in each drum. If the pressure created by the relieving gases in the line to the seal drum is greater than the back pressure created by the water, then the gases are relieved to the flare. Heavy relief flow from any unit(s) can be directed to the in-service flare with the greatest smokeless capacity, which is the North Flare. At low flare flow rates, the Unicracker Flare has greatest control of smokeless operation. Because the Wilmington refinery now operates normally with little or no flare flow, flow is typically directed first to the Unicracker Flare. If a heavy flow exceeds the first flare's smokeless capacity, excess flow will successively "spill over" to the second and third flare, as needed.</p> <p>Each flare also has a molecular seal. The molecular seal provides a barrier to prevent air from entering the flare stack and creating an explosive environment within the stack. This reduces the amount of purge gas required for the flares. Steam is injected to promote proper combustion, and can be adjusted as necessary. The design capacity of the flares is as follows: North Flare ~ 1,120,000 lb/hr, South Flare ~ 1,220,000 lb/hr, and Unicracker Flare ~ 655,000 lb/hr.</p> <p>Maintenance is performed on a flare when the process units that relieve to the flare are in Turnaround. This is usually every few years, and the seal heights can be adjusted, as necessary, to maximize flare gas vapor recovery from the flare(s) still in service.</p>	<p>High H<sub>2</sub>S streams may vent to the flares during non-routine conditions, such as, emergency, shutdown, startup, process upset or relief valve leakage periods.</p> <p>Currently, a daily grab sample at each flare inlet is obtained and analyzed for total sulfur/H<sub>2</sub>S content in order to monitor compliance with South Coast Air Quality Management District (SCAQMD) Rule 1118 requirements. The rule also contains an H<sub>2</sub>S limit of 160 ppm (3-hour average) applicable to all flares effective 1/1/09. Although not required by the rule, H<sub>2</sub>S CEMS upstream of the South and Unicracker flares are planned for installation by 12/31/08 and for the North Flare by 12/31/10 in order to monitor compliance with the pending requirement (assuming the CEMS technology is commercially available and reliable for this application).</p>	<p>An SCAQMD permitted flare gas recovery and treatment system meeting Paragraph 139(a) requirements was operational prior to the Date of Lodging of the Consent Decree.</p> <p>The projected Paragraph 139 compliance and NSPS applicability date for the three flares is no later than 12/31/11.</p>



**Dorsey Payne**  
Program Manager, Consent Decree  
U.S. Refining, Refinery Services

1000 South Pine  
860-18 South Tower  
Ponca City, OK 74602  
(580) 767-6404  
Dorsey.J.Payne@conocophillips.com

December 27, 2007

Director, Air Enforcement Division  
Office of Civil Enforcement  
U.S. Environmental Protection Agency  
Ariel Rios Building South, Room 1119  
Mail Code 2242-A  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20004

Chief, Environmental Enforcement Section  
Environmental & Natural Resources Division  
U.S. Department of Justice  
P. O. Box 7611, Ben Franklin Station  
Washington, DC 20044-7611

Director, Air Enforcement Division  
Office of Civil Enforcement  
c/o Matrix New World Engineering Inc.  
120 Eagle Rock Avenue, Suite 207  
East Hanover, NJ 07936

RE: Civil Action No. H-05-0258 in the U.S. District Court for the Southern District of Texas  
United States of America et al. v ConocoPhillips Company  
Case No. 90-5-2-1-06722/1

Dear Ladies and Gentlemen:

The ConocoPhillips Consent Decree (Civil Action No. H-05-258) identifies several requirements for flaring devices at the ConocoPhillips Refineries including the requirement to certify compliance with one of the compliance methods identified in Paragraph 139 and to accept NSPS applicability. There are 49 flares addressed by this Consent Decree, and they are listed in Appendix A. This letter addresses the requirement in paragraph 142(a)(i) that COPC certify that at least 50% of the 49 flares have complied with one of the four compliance methods set forth in Paragraph 139 of the Decree by December 31, 2007.

By this letter and in accordance with Paragraph 142 of the Consent Decree, ConocoPhillips is certifying that at least 50% of the system-wide Flaring Devices identified in Appendix A have either been certified as 1) complying with one or a combination of the compliance methods found in Paragraph 139 (subparagraphs a-d) and accepting NSPS applicability for these flares

December 27, 2007

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(23 Flares) or 2) having been permanently shutdown (3 flares). The total flares meeting one of the compliance options and/or having been permanently shutdown represent 53.1% of the flares being certified and brings us into compliance with the minimum 50% requirement.

**Details**

The attached Table 1 lists the flares for which certifications have been submitted, by refinery. It also notes which option from paragraph 139 option(s) were used by each flare.

A certification statement is included as an attachment to this letter.

If you have any questions or concerns, please contact me at the above telephone number.

Sincerely,



Dorsey Payne

ec:

[csullivan@matrixnewworld.com](mailto:csullivan@matrixnewworld.com)

[foley.patrick@epa.gov](mailto:foley.patrick@epa.gov)

cc:

Chief, Air Compliance Branch

U.S. EPA Region 2

Ted Weiss Federal Building

290 Broadway, 21<sup>st</sup> Floor

New York, NY 10007-1866

Chief

Air Enforcement Branch (3AP12)

EPA Region III

1650 Arch Street

Philadelphia, PA 19103

Air and Radiation Division

U.S. EPA, Region 5

77 West Jackson Blvd. (AE-17J)

Attn: Compliance Tracker

Chicago, IL 60604

Office of Regional Counsel

U.S. EPA, Region 5

77 West Jackson Blvd. (C-14J)

Chicago, IL 60604

December 27, 2007

Page 3

cc's continued:

Chief,  
Air, Toxics, and Inspections Coordination Branch  
Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, TX 75202-2733

Deborah Jordan, Director  
Air Division  
Mail Code AIR-1  
U.S. EPA Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

Margaret Waldon  
Air Division  
Mail Code AIR-1  
U.S. EPA Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

Director  
Office of Compliance and Enforcement  
U.S. Environmental Protection Agency, Region 10  
Mail Code: OCE-164  
1200 Sixth Avenue  
Seattle, WA 98101

Peggy M. Hatch  
Administrator, Enforcement Division  
Office of Environmental Compliance  
Louisiana Department of Environmental Quality  
P. O. Box 4312  
Baton Rouge, LA 70821-4312

Administrator, Air Compliance & Enforcement  
New Jersey Department of Environmental Protection  
P. O. Box 422  
401 East State Street  
Trenton, NJ 08625-0422

Manager, Central Air Compliance & Enforcement Office  
New Jersey Department of Environmental Protection  
300 Horizon Center, P. O. Box 407  
Robbinsville, NJ 08625-0407

December 27, 2007

Page 4

cc's continued:

Deputy Attorney General, Section Chief  
Environmental Enforcement  
Division of Law  
P. O. Box 093  
25 Market Street  
Trenton, NJ 08625-0093

Regional Manager, Air Quality  
Pennsylvania Department of Environmental Protection  
2 East Main Street  
Norristown, PA 19401

Maureen Wozniak  
Assistant Counsel  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
P. O. Box 19276  
Springfield, IL 62794-9276

Manager, Compliance and Enforcement Section  
Illinois Environmental Protection Agency  
1021 North Grand Avenue East  
P. O. Box 19276  
Springfield, IL 62794-9276

Director  
Northwest Clean Air Agency  
1600 South Second Street  
Mount Vernon, WA 98273-5202

**CERTIFICATION STATEMENT**

I hereby certify that at least 50% of the system-wide Flaring Devices identified in Appendix A have either been certified as 1) complying with one or a combination of the compliance methods found in Paragraph 139 (subparagraphs a-d) and accepting NSPS applicability for these flares (23 Flares) or 2) having been permanently shutdown (3 flares).

I certify under penalty of law that this information was prepared under my direction or supervision by personnel qualified to properly gather and evaluate the information submitted. Based on my directions and after reasonable inquiry of the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Dorsey Payne

Dorsey Payne  
Program Manager, Consent Decree, U.S Refining

12/31/07

Date

**Table 1**  
**Conoco Phillips Summary**  
**Flare Certifications**

<b>COP Refinery</b>	<b>Name of Flare in Appendix A</b>	<b>Paragraph 139 Option</b>	<b>Certification Date</b>	<b>Count</b>
Alliance	Marine Vapor Recovery Flare - 406 D-15	b	2007	1
Alliance	Marine Vapor Recovery Flare - 406 D-16	b	2007	1
Bayway	CLEU Flare	a,c	2007	1
Bayway	Eastside Flare	b	2007	1
Borger	NGL Corrosive Flare	Shutdown	2007	1
Borger	Acid Gas Flare	c	2007	1
Borger	Derrick Flare	c	2007	1
Ferndale				0
Los Angeles	LPG Flare (Wilmington)	b	2007	1
Rodeo	19C-1 (coker)	a	2007	1
Rodeo	19C-602	c	2007	1
Santa Maria	Flare (coker)		2007	1
Sweeny	Unit 7 Flare	b	2007	1
Sweeny	Units 11/14 Flare	Shutdown	2007	1
Sweeny	Units 15/17/19 Flare	a	2007	1
Sweeny	Expansion LP Flare	a	2007	1
Sweeny	Expansion HP Flare	a	2007	1
Sweeny	Unit 5 Flare	a	2007	1
Sweeny	Unit 30 Flare	b	2007	1
Sweeny	VDU/DCU Flare	a	2007	1
Sweeny	DEA Stripper Flare	c	2007	1
Sweeny	SW Stripper Flare	c	2007	1
Trainer	Acid Gas Flare	c	2007	1
Trainer	Old Yard Flare	c	2007	1
Wood River	North Property Ground Flare	Shutdown	2007	1
Wood River	Distilling Flare	a	2007	1
Wood River	Benzene Loading Flare	b	2007	1
		Total Certified		26
		Total COP Flares		49
		Percent Certified		53.1